

**HIGHER EDUCATION INDUSTRY
LEADERSHIP AND STRATEGY:
A GROUNDED THEORY STUDY IN WESTERN CANADA**

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ABSTRACT

Strategy, executive leadership and organizational performance have been documented over decades of research. Despite the significant body of descriptive empirical data in the field, there remains a paucity of theoretical frameworks describing and explaining the interrelationships between changes in the external and internal strategic environment, strategy, executive leadership, organizational performance, Management Control Systems and Human Resources. The aim of this research was to ascertain these interrelationships in the context of the higher education industry in Western Canada. A preliminary contingency theoretical framework was developed from the literature to serve as a theoretical stance for the empirical research. The empirical research was undertaken in five phases with an exploratory combined methodology design. The first phase involved a pilot study. The second phase involved the Grounded Theory analysis of 20 semi-structured interviews of executive leaders from the higher education industry in Western Canada (i.e., primary data). The third phase involved the Grounded Theory analysis of institutional documents (i.e., annual reports and financial statements) from 46 higher education institutions in Western Canada (i.e., secondary data). Core themes and interrelationships were extracted from the Grounded Theory analysis of the semi-structured interviews and the institutional documents. The fourth phase involved the analysis of 9 unstructured interviews of executive leaders from the higher education industry in Western Canada (i.e., validation data). The fifth phase involved a triangulation study using descriptive univariate & bivariate statistics as well as non-parametric statistics to further explore the institutional documents (i.e., annual reports and financial statements) of 46 higher education institutions in Western Canada (i.e., triangulated data). The research findings were compared to the preliminary contingency theoretical framework to result in a contingency theoretical framework describing and explaining the interrelationships between changes in the external and internal strategic environment, strategy, executive leadership, organizational performance, Management Control Systems and Human Resources. The contingency theoretical framework addressed the empirical, theoretical and practical gaps in existing knowledge. In regards to the applications of the contingency theoretical framework, some speculative recommendations are offered to policy makers, executive leaders and Human Resources practitioners. More research was however recommended to further establish the descriptive and explanatory range capability of the contingency theoretical framework.

DEDICATION

To my father Samuel (*Mon plus beau poète*), my mother Noelle (*Mon plus beau modèle*), my husband Mark (*Ma plus belle histoire*), my daughters Yamaelle & Mayance, little Oliver & Christopher (*Mes plus beaux poèmes*).

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Samuel Brejar, 1985

To Malala Yousafzai and her brave efforts to defend the basic rights of children and the right of girls to education.

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Finally, I would like to thank my husband Mark and my daughters Yamaelle and Mayance. All the love I received from you gave me the strength to do this.

To all of you, I express my deepest gratitude.

DECLARATION STATEMENT



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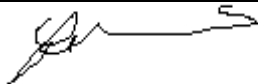
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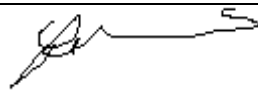
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GLOSSARY OF TERMS

In the context of this research:

1. Higher education institutions refer to all non-profit publicly funded academies, universities, colleges and collegiate-level institutions in Western Canada that award academic degrees, diplomas and/or professional certifications.
2. Strategy refers to the strategic stance of higher education institutions. Strategic management refers to the strategic planning, strategy implementation and strategy evaluation of cross-functional processes that enable higher education institutions to achieve their mission and vision in line with their Roles & Mandates. Strategic alignment refers to the synchronization of the different functional areas of higher education institutions with the strategic stance. Organizational performance refers to the actual inputs and outputs of higher education institutions as measured against their intended inputs and outputs in terms of effectiveness and efficiency.
3. Executive leaders are the actors of the strategic planning, strategy implementation, strategy evaluation and strategic alignment of a whole institution or a whole sub-unit of the institution. Executive leadership refers to the leading of a whole institution or whole sub-unit of the institution by executive leaders.
4. Management Control Systems refer to ways control is exercised over authority delegated to higher education institutions by the government. Management Control Systems involve aligning strategic stances, implementation plans and monitoring progress towards the accomplishment of implementation plans. Financial forecasts, accounting, budgeting and auditing systems are prime examples of Management Control Systems, as they establish intended inputs and outputs to monitor actual inputs and outputs with associated yearly reports (e.g., annual reports, accountability reports, consolidated statements of financial position, consolidated statements of operations, changes in net assets and cash flow and auditor's reports).
5. Conventional Human Resources refers to the administration of pay, benefits, dismissals, recruitment and development. Strategic Human Resources are more proactive and requires dealing with Human Resources functions in a strategic way for higher education institutions to meet their strategic goals (i.e., intended inputs and outputs).

CHAPTER 1 – INTRODUCTION

This chapter focuses on introducing the scope of the research, the background of publicly funded institutions in Western Canada, the academic debates in the literature with the core themes to be explored and their interrelationships, the research problems and questions, the research methodology and assumptions, and the structure of the thesis.

1.1 Scope of the Research

This research focused on non-profit publicly funded higher education institutions in Western Canada.

Firstly, higher education institutions in this research were defined as all non-profit and publicly funded academies, universities, colleges and other collegiate-level institutions that awarded academic degrees, diplomas and/or professional certifications. Higher education was described as an industry as opposed to a sector, which was in tune with the terminology used to describe higher education in Canada (Boyko and Jones, 2010, pp.83-102). This definition relied on the idea that higher education was a business, education was a product, and students were customers (Boyko and Jones, 2010, pp.83-102). No charity models and/or for-profit institutions were explored in the context of this research.

Secondly, higher education institutions in this research were based in Western Canada. Although the geographical denomination of Western Canada is very broad (Boyko and Jones, 2010, pp.83-102), it referred to the provinces of Alberta and British Columbia (i.e., BC) in this research. In Canada, higher education is governed by provinces and territories as opposed to the federal government as per the British North America Act (1867) and the Constitution Act (1867). This leads to major differences and incompatibilities in terms of the systems in place between provinces and territories. However, Alberta and BC have Memorandums of Agreements (e.g., Alberta BC memorandums, 2007) in place aiming at offering systems that are comparable and aligned with each other. Indeed, Alberta BC memorandums (2007, pp.1-4) involve a series of agreements with: (i) protocols for a

collaborative strategic approach; (ii) protocols for cooperation and development in acquisition and learning resources, protocols for credit transfers between Alberta and BC, and protocols for a partnerships in support of assistive technology and other specialised services to students with special needs; (ii) protocols for cooperation in research development and innovation; and (iv) protocols for cooperation between Alberta and BC Presidents.

The scope of the research (i.e., non-profit publicly funded higher education industry and geographical area of Western Canada) meant that the extraction of a formal theoretical framework was arduous despite efforts to increase generalisability with the use of a combined methodology design. Indeed, by definition, the scope of the research had some implications in terms of the limitations of the research itself (Roberts, Wallace and Pfab, 2008, IBR 1, pp.1/18-19).

1.2 External and Internal Strategic Environment

This research focuses on non-profit publicly funded higher education institutions in Western Canada. This section gives a brief description of the external and internal strategic environment of non-profit publicly funded higher education institutions in Western Canada. As such, this section provides the empirical context of the thesis to illustrate the environment within which non-profit publicly funded higher education institutions in Western Canada evolve.

This section focuses on: (i) the external factors related to governmental rules in Western Canada; (ii) the external factors related to competitive markets in Western Canada; and (iii) the internal factors related to organisational culture in Western Canada.

1.2.1 External Strategic Factors Related to Governmental Rules

The higher education institutions in this research were publicly funded. In 2007, the Roles & Mandates for the publicly funded higher education institutions was developed in response to recommendations from the Auditor General and consultations with all stakeholders (e.g., students, employers, publicly-funded higher education institutions, etc.). The Roles & Mandates principles were enshrined in a modified version of the Post-Secondary Learning Act (1985). The Roles & Mandates outlined key directions for the higher education system to improve their accountability and compliance with regulatory requirements from the government. In theory, publicly funded higher education institutions in Western Canada were autonomous bodies with their own independent governance structures (i.e., as per the Financial Administration Act, 1985, and the Post-Secondary Learning Act, 2004). However, in practise, despite the fact that higher education institutions had different balances of funding streams, they were not autonomous in that their largest contributor of funds was the provincial government (i.e., as per the British North America Act, 1867, and the Constitution Act, 1867). In order to receive funding and maintain their accredited status, higher education institutions in Western Canada had to fulfil a number of regulatory requirements (Auditor General, 2013, p.110):

- *“In deciding which project it should fund the department assessed proposed projects against their program criteria and focused on whether the projects were feasible from a business and financing perspective and whether they met regulatory requirements.”*

These included meeting the requirements of the Roles & Mandates and Letters of Expectation issued by the government (i.e., as per the Roles & Mandates, 2007), as well as submitting annual reports with consolidated statements of financial position independently audited (i.e., Auditor General of Alberta or British Columbia, or KPMG Chartered Accountants, as per the Auditor General Act, 1985). These regulatory requirements also involved specific expected performance outcomes (e.g., lower the operating costs associated to teaching and research) and incentives for achieving these performance outcomes (e.g., funding attached to students enrolment indicators). Higher education institutions in Western Canada were also subject to inspection requirements related to quality standards for teaching and learning assessed by Provincial Quality

Assurance Agencies (i.e., Campus Alberta Quality Council and Education Quality Assurance of British Columbia). Recently, however, a public debate arose when the Auditor General (2013, p.49) highlighted difficulties with higher education institutions on issues related to: (i) strategic planning offered by the government; and (ii) financial sustainability of higher education institutions funded by the government:

- *“Institutions do not clearly understand what the Minister wants (...) to achieve or how to achieve it (...). Strategic planning is missing”.*
- *“The department and institutions have not identified sustainable funding sources for initiatives”.*

As such, higher education institutions in Western Canada are organizational systems with strategies influenced by external strategic changes in societal functions and rules as defined by the government (Broadbent, Laughlin and Alvani-Starr, 2010, pp.461-473). The government uses steering media in terms of regulations and provision of funding to achieve specific societal goals with higher education institutions (Broadbent, Laughlin and Alvani-Starr, 2010, pp.461-473) within a principal-agent relationship where the payoff from the principal (i.e., government) depends on the actions taken by the agent (i.e., higher education institutions) (Broadbent, Dietrich and Laughlin, 1996, pp.259-284; Williamson, 1991, pp.75-94). Indeed, steering media are societal key drivers for changes (Habermas, 1997, p.367) that imply the use of positional power and/or incentives to initiate actions and activities at an institutional level (Broadbent, Laughlin and Alvani-Starr, 2010, p.463). In other words, funding from higher education institutions in Western Canada is provided under a steering media of Roles & Mandates and Letters of Expectations in exchange for funding, with only limited discretion for higher education institutions to decide whether and how the funds may be used (Broadbent, Laughlin and Alvani-Starr, 2010, pp.461-473). However, these steering media may be ineffective and inefficient in terms of the level of strategic planning and funding provided by the government (Auditor General, 2013, p.49).

1.2.2 External Strategic Factors Related to Competitive Markets

The higher education institutions in this research were non-profit, but tended to be resources constrained (Auditor General, 2013, p.47):

- *“With so many institutions, committees and entities involved and potential initiatives to undertake with limited resources, the ministry needs strategic planning and systems to carefully plan, implement, govern and sustain not only individual initiatives, but all initiatives collectively”.*

Because funding from the government tended to be limited (e.g., in its latest 2013 budget, the government cut the operating grant to higher education institutions by an average of 6.8% instead of increasing it by 2%, which corresponded to a long term trend for operating grants in Western Canada), focus on funding from alternative and/or private sources was encouraged (e.g., summer rentals of on-campus parking and residences, corporate donations, ancillary fees, etc.). The higher education industry also tended to increase Private-Public Partnerships (Broadbent and Laughlin, 2005, pp.75-97) (e.g., Cenovus Energy’s \$4.4 million endowments to Chairs of Environmental Engineering and 119.4 million record levels of gifts to Faculties of Medicine & Dentistry in 2012-2013) to partially cover capital and operating expenses deficits. The government also required that higher education institutions get on board with governmental economic agendas (e.g., commercialisation of university led research programs and skilled-based training with coop programs for students to integrate the workforce more effectively) and explore international strategies to increase foreign students enrolments and enrolment fee revenues (e.g., Memorandums of Understanding with Chinese institutions and substantially higher enrolment fees for foreign students, or funding from the Chinese government in exchange for a Confucius Institute promoting Chinese culture and language on campus). Recently, however, a public debate surfaced to recommend that Canadian Medicine & Dentistry schools restrict the influence of the pharmaceutical industry on educational resources and course contents (i.e., half of all Canadian Medicine & Dentistry schools policies regarding Public-Private Partnerships were judged too permissive). Another public debate arose when the scientific research community criticized their muzzling by the government whom had strategically cut funding to scientific research programs that did not support its industrial or economic agenda (e.g.,

oil and gas reclamation and remediation research programs and/or environmental management research programs in general). A further public debate concerned skilled-based training and coop programs with a call for legislation to protect vulnerable students subjected to corporations in need for a “free” workforce to decrease the cost of labour and increase profits.

As such, higher education institutions in Western Canada are non-profit organizational systems, but they have strategies influenced by external strategic changes with a focus on alternative sources of revenue, Private-Public Partnerships and competitive markets (Broadbent and Laughlin, 2005, pp.75-97). Higher education in Western Canada is treated like a commodity with a focus on industrial and/or economic agendas. However, this may be ineffective and inefficient as higher education institutions may be social enterprises that contribute to the development of society as opposed to commodity providers.

1.2.3 Internal Strategic Factors Related to Organizational Culture

The higher education institutions in this research tended to have high turnovers and termination rates for executive leaders, staff and faculty, as well as frequent programs of “adjustments” of faculty & staffing levels with early retirement programs and buyout packages (Boyko and Jones, 2010, pp.83-102). The higher education industry in Western Canada was a labour intensive industry (i.e., high cost of salaries with more than 75% of operating budgets spent on salaries and benefits). Because resources tended to be constrained (Auditor General, 2013, p.47), any reduction in operating and capital budgets resulted in the suspension of programs, outsourcing of service departments, suspension of maintenance projects for infrastructure and associated job cuts. However, a recent public debate arose in relation to the fact that termination of executive leaders was not financially sustainable (i.e., buyout packages for executive leaders at a Vice-President level and above typically involved a cost to the institution of hundreds of thousands of dollars). Also, local unions or faculty & staff representatives argued against job cuts and/or re-openings of collective agreements to avoid mass layoffs, arguing that there were other ways for higher education institutions to be more efficient with their spending.

As such, higher education institutions in Western Canada are organizational systems with strategies influencing internal changes in terms of their organizational culture with less security of tenure and more fixed and/or short-term contracts, and with more focus on managerial practises (Boyko and Jones, 2010, pp.83-102; Broadbent, Dietrich and Roberts, 1997, pp.1-13). However, this may be ineffective and inefficient as the financial cost of turnover and termination is very high.

1.2.4 Summary

Since 2007, publicly funded higher education institutions in Western Canada were situated in a specific contingency environment in terms of governmental rules, competitive markets and organizational culture that had an impact on their strategy and reversely. This contingency environment involved a shift towards a more administrative top-down model of the higher education industry (Broadbent, Dietrich and Laughlin, 1997, pp.1-13) in Western Canada. This contingency environment also involved a shift towards a principal-agent relationship of steering media, where the payoff from the principal (i.e., government) depended on the actions taken by the agent (i.e., higher education institutions) but where the agent only acted in ways that led to a maximum pay-off (Broadbent, Dietrich and Laughlin, 1996, pp.259-284). This meant that there was a real impact of performance management systems (i.e., accounting and auditing systems) at both a societal (Habermas, 1987) and an institutional (Broadbent, 2011, p.264) level in Western Canada, with: (i) performance management systems as steering media; (ii) structures of the government that control achievements in line with Role & Mandates and Letters of Expectations; and (iii) financial stringencies (Broadbent, 2011, p.264-277). This also meant that performance management systems (i.e., accounting and auditing systems) were powerful tools (Oakes and Berry, 2009, pp.371-372) in Western Canada, with an impact that involved: (i) coercive obedience (i.e., with real obedience from higher education institutions); or (ii) instrumental obedience (i.e., with devious obedience to maximise pay-off without any actual changes to interpretive schemes and behaviours of higher education institutions) (Oakes and Berry, 2009, pp.343-375).

1.3 Academic Debates

The research focused on the literature overlaps and gaps between the themes of changes in the external and internal strategic environment of the higher education industry (i.e., external and internal strategic analysis), strategy, executive leadership, organizational performance (i.e., strategic alignment), through Management Control Systems and Human Resources. Each of these overlaps and gaps was related to an academic debate.

The first academic debate was related to whether and how the higher education industry had shifted on external and internal strategic dimensions of governmental rules, competitive markets and organizational culture (i.e., external and internal strategic analysis) resulting in a more managerial approach to the industry. On the one hand, the literature review showed that the value of collegiality was considered more important than the value of managerialism in higher education institutions, because higher education institutions were social enterprises (Bryman, 2007, pp.693-710; Bush, 2007, p.391; Deem and Brehony, 2005, p.217; Amaral, Meek and Larsen, 2003, p.14; Enders, 2001, pp.1-23; Knight and Trowler, 2001, pp.20-56; Clarke and Newman, 1997, p.15). On the other hand, the literature review showed that with the recent economic downturns, governmental funding had been limited, and concerns with effectiveness and efficiency had been growing in a way that favoured a more managerial approach to the higher education industry (Glass, McCallion, McKillop, Rasaratman and Stringer, 2009, pp.249-267; Gordon and Fisher, 2008, pp.217-255; Broadbent, 2007, pp.193-198).

The second academic debate was related to whether and how Management Control Systems were playing a role in the alignment of strategy, executive leadership and organizational performance (i.e., strategic alignment) in the higher education industry. On the one hand, the literature review showed that alignment of strategic management (Christiansen and Higgs, 2008, pp.13-33; Kaplan and Norton, 2004, p.15; Porter, 1980, pp.11-15) and executive leadership (Ekaterini 2010, pp.14-16; Lichtenstein and Dade, 2007, pp.15-31; Vries, Roe and Taillieu, 1998, pp.486-501; Cairns, 1996, p.115; Drucker 1973, p.18) was a pre-requisite for improved organizational performance. On the other hand, the literature review showed that strategic management by executive leaders did not necessarily help dealing with the high level of complexity of the business environment and as such did not necessarily improve organizational performance (Fiol and O'Connor,

2003, pp.54-70; Bogner and Barr, 2000, pp.212-226; Daft, Sormunen and Parks, 1988, pp.123-139) and that the impact of executive leadership on organizational performance was modest at best (Crossland and Hambrick, 2007, pp.767-789; Podolny, Khurana and Hill-Popper, 2005, pp.1-36; Finkelstein and Hambrick, 1996, p.23).

The third academic debate was related to whether and how Human Resources were playing a role in the alignment of strategy, executive leadership and organizational performance (i.e., strategic alignment) in the higher education industry. On the one hand, the literature review showed that interventions from Human Resources helped select, develop and align executive leaders' capabilities to turn them into functionalities (Arnone, 2010, pp.27-28; Conlon and Smith, 2010, pp.53-55; Goleman, 2009, pp.78-90; Ohlott, 2004, pp.151-182; McCauley, Eastman and Ohlott, 1995, pp.93-115). On the other hand, the literature review showed that before Human Resources could optimize their practises, they needed to make the link between people and profits, to translate business goals into workforce needs and workforce needs into business goals (Cascio and Boudreau, 2011, pp.1-18; Stopper, 2010, pp.11-13; Mathis, Jackson and Zinni, 2008, pp.11-56). This meant that Human Resources needed to move away from transactional work to a strategic approach concerned with long-term objectives in terms of organizational performance (Becton and Schraeder, 2009, pp.11-18).

1.4 Research Problems and Questions

This research is related to the academic debates concerning internal and external changes in the strategic environment of higher education in Western Canada, their impact in terms of strategy, executive leadership, organizational performance, and the role played by Management Control Systems and Human Resources in the strategic alignment of higher education institutions.

The literature on the higher education industry showed that a series of external and internal strategic contingencies (e.g., governmental rules, competitive markets and organizational culture) affected the way higher education institutions adjusted to their environment. The literature mostly relied on empirical data to describe the impact of these changes in terms of strategy, executive leadership and organizational performance. Also, the literature gave no description and explanation of the role played by

Management Control Systems and Human Resources in the interrelationships existing between changes in the external and internal strategic environment, strategy, executive leadership and organizational performance. The literature appeared to be lacking a broad theoretical framework to describe and explain changes in the external and internal strategic environment of the higher education industry (i.e., external and internal strategic analysis), strategy, executive leadership, organizational performance (i.e., strategic alignment), Management Control Systems and Human Resources (Berry, Coad, Harris, Otley and Stringer, 2009, pp.2-20).

Therefore, this research focused on generating a theoretical framework that would be a valuable tool for increasing the range of description and the range of explanation of the interrelationships existing between these themes within the context of the higher education industry in Western Canada.

The research problems focused on the resolution of the academic debates in the context of the higher education industry in Western Canada, and on the elaboration of a theoretical framework that would increase the range of description and explanation of the interrelationships between the themes of changes in the external and internal strategic environment of the higher education industry, strategy, executive leadership, organizational performance, Management Control Systems and Human Resources (Berry *et. al.*, 2009, pp.2-20).

The research questions were: (i) whether and how changes in the external and internal strategic environment of the higher education industry could be described and explained in terms of changes in governmental rules, competitive markets and organizational culture; (ii) whether and how the strategic stance of higher education institutions, executive leadership and organizational performance were strategically aligned with a mediating role played by Management Control Systems; and (iii) whether and how the strategic stance of higher education institutions, executive leadership and organizational performance were strategically aligned with a mediating role played by Human Resources.

The research questions were considered important and relevant because, as compared to other roles within the higher education industry, executive leadership had been under-researched at a theoretical level (Meek, Goedegebuure, Santiago and Carvalho, 2010,

p.10). Also, at the practical level, there was a shortage of executive leadership's talent which meant that institutions in the higher education industry had difficulties to hire, develop and retain their existing and future executive leaders in a way that could benefit the industry and improve organizational performance (Meek *et. al.*, 2010, p.10; Skinner, 2010, pp.9-15; Michaels, Handfield-Jones and Axelrod, 2001, p.25).

1.5 Assumptions and Research Methodology

The research methodology of this thesis relied on a Grounded Theory approach. The Grounded Theory approach was believed to be the most appropriate approach, because this research focused on the exploratory elaboration of a theoretical framework that would increase the range of description and explanation of the themes of changes in the external and internal strategic environment of the higher education industry, strategy, executive leadership, organizational performance, Management Control Systems and Human Resources (Berry *et. al.*, 2009, pp.2-20) in order to provide practitioners with applied recommendations. Indeed, exploratory research with a Grounded Theory approach is the most appropriate approach when theoretical frameworks are under formulation (Roberts, Wallace and Pfab, 2008, IBR 1, pp.3/41-42). A Grounded Theory approach is also appropriate when the aim is to provide practitioners with recommendations based on theoretical frameworks (Roberts, Wallace and Pfab, 2008, IBR 1, pp.3/41-42).

1.5.1 Literature Review and Preliminary Theoretical Framework

A Grounded Theory approach was adopted in this dissertation (Easterby-Smith, Thorpe and Lowe, 2008, p.14). Grounded Theory does not necessarily involve a literature review as a basis for the empirical research (Glaser and Strauss, 1967, p.17). However, a relativist approach to the Grounded Theory argues that approaching a research without a relevant literature review and preliminary theoretical framework is unwise, as this process often generates amounts of data that are unmanageable (McNally, 2009, pp.74-75; Roberts, Wallace and Pfab, 2008, IBR1, pp.3/38-39; Schreiber and Stern, 2001, pp.78-87; Charmaz, 2000, pp.509-535; Strauss and Corbin, 1998, p.18). Schreiber and Stern (2001, p.79) recommends the use of a priori theoretical frameworks developed from the literature review to guide data collection and analysis when using Grounded Theory.

Strauss and Corbin (1998, pp.41-42) refers to “theoretical sensitivity” as a way to allow the development of a theoretical framework that is grounded and conceptually dense, yet based on a number of sources including readings, research, secondary data like institutional documents and professional experience. This process of integration of the literature review aids in focussing the research and in preventing the researcher from becoming lost in the data.

Consequently, the researcher engaged with the literature review from the beginning, weaving it through into the analysis of the data and into the development of the preliminary and enhanced contingency theoretical frameworks (Roberts, Wallace and Pfab, 2008, IBR1, pp.3/38-39; Schreiber and Stern, 2001, pp.78-87; Charmaz, 2000, pp.509-535; Corbin and Strauss, 1990, pp.3-20).

1.5.2 Qualitative and Quantitative Data and Analysis

An exploratory combined methodology design related to a relativist ontology/epistemology was adopted in this dissertation (Easterby-Smith, Thorpe and Lowe, 2008, p.14). A relativist ontology/epistemology according to Easterby-Smith, Thorpe and Lowe (2008, p.14) means that a combined methodology design needs to be used to get multiple viewpoints and analyses. In this context, Grounded Theory is a methodology involving the discovery of a theoretical framework through the analysis of data that are mainly qualitative but can also be quantitative (i.e., “All is data” in a Grounded Theory context; Suddaby, 2006, pp.633-642; Glaser and Strauss, 1967, Chapter VIII).

Firstly, a qualitative Grounded Theory analysis of semi-structured interviews with executive leaders and institutional documents allowed the researcher to extract core themes and their interrelationships from primary and secondary data (Easterby-Smith, Thorpe and Lowe, 2008, p.122; Suddaby, 2006, pp.633-642).

Secondly, a quantitative triangulation study using descriptive univariate & bivariate statistics as well as non-parametric statistics was conducted to further explore the core themes and interrelationships extracted from the Grounded Theory analysis of the semi-

structured interviews and institutional documents (Suddaby, 2006, pp.633-642; Glaser and Strauss, 1967, p.17).

1.5.3 Summary

A preliminary contingency theoretical framework of themes and interrelationships developed from the literature review was applied with the qualitative Grounded Theory analysis of semi-structured interviews and institutional documents. A triangulation study was then conducted with a quantitative exploration of the core themes and their interrelationships. As such, the triangulation study within a Grounded Theory context was an additional route into theory generation. The preliminary contingency theoretical framework was compared to the data collected resulting in an enhanced contingency theoretical framework that was believed to increase the range of description (i.e., whether) and explanation (i.e., how) of changes in the external and internal strategic environment of the higher education industry (i.e., external and internal strategic analysis), strategy, executive leadership, organizational performance (i.e., strategic alignment) through Management Control Systems and Human Resources (Berry *et. al.*, 2009, pp.2-20).

1.6 Thesis Structure

This thesis is organised across six chapters. Chapter 1 is the introduction. Chapter 2 is a review of the literature for the areas of relevance to this thesis: changes in the external and internal strategic environment of the higher education industry (i.e., external and internal strategic analysis), strategy, executive leadership, organizational performance (i.e., strategic alignment), Management Control Systems and Human Resources. It also presents a preliminary contingency theoretical framework developed from the literature review. Chapter 3 outlines the foundations of the exploratory research methodology used in this thesis. It provides a presentation of the Grounded Theory methodology and the reasoning underpinning the use of a Grounded Theory approach, as well as the process undertaken to ensure academic rigour. It also provides a presentation of the triangulation study. Finally, Chapter 3 presents the data collection and analysis process. Chapter 4 presents the findings from the semi-structured interviews study (i.e., primary data) and

informal interviews (i.e., validation data), the findings from the institutional documents study (i.e., secondary data) and the findings from the triangulation study (i.e., triangulated data). Chapter 5 proffers a discussion of the empirical and theoretical findings and provides a contingency theoretical framework of changes in the external and internal strategic environment of the higher education industry, strategy, executive leadership, organizational performance, Management Control Systems and Human Resources. It also includes a discussion of speculative recommendations to policy makers, executive leaders and Human Resources practitioners, the empirical and theoretical limitations of the research, and recommendations for further research to establish the descriptive and explanatory range capability of the contingency theoretical framework. Chapter 6 is the conclusion with a focus on the knowledge claim and the thesis argument.

CHAPTER 2 – LITERATURE REVIEW

The purpose of this chapter is to introduce the themes of this research and their interrelationships with a literature review and preliminary theoretical framework (Roberts, Wallace and Pfab, 2008, IBR 1, pp.3/38-39; Suddaby, 2006, pp.633-642; Schreiber and Stern, 2001, pp.78-87; Charmaz, 2000, pp.509-535; Strauss and Corbin, 1998, p.18). This chapter starts by providing a review of the literature on changes in the external and internal strategic environment of the higher education industry. The chapter then provides a review of the concepts of strategy and strategic management (i.e., strategic planning, strategy implementation and strategy evaluation) with a focus on strategic alignment, organizational performance and Management Control Systems. The chapter follows with a review of the literature on educational management and academic leadership with a focus on interrelationships between executive leadership and organizational performance. The chapter continues with a review of the literature in terms of the role played by Human Resources in the strategic alignment of organizations. The chapter then provides a preliminary contingency theoretical framework developed from the literature to serve as a theoretical stance for the empirical research (Roberts, Wallace and Pfab, 2008, IBR 1, pp.3/38-39; Suddaby, 2006, pp.633-642; Schreiber and Stern, 2001, pp.78-87; Charmaz, 2000, pp.509-535; Strauss and Corbin, 1998, p.18). The chapter ends with an outline of the research problems, research questions, aims, objectives and guiding propositions within an exploratory context.

2.1 Higher Education Industry

The purpose of this section is to analyse changes in the external and internal strategic environment of the higher education industry (i.e., external and internal strategic analysis), with a debate that opposes the tenets of a collegial culture of learning and scholarship sustained by public money, enrolment fees and research grants, to the tenets of a managerial culture of hierarchy and changing governmental rules, competitive markets and organizational culture sustained by private money and investments (Broadbent, Dietrich and Roberts, 1997, pp.1-13).

2.1.1 Non-Profit Collegial Model

The tenets of a collegial culture of learning, scholarship and academic leadership sustained by public money, enrolment fees and research grants, were supportive of a non-profit model of higher education. Indeed, the higher education industry was described as having a series of characteristics that were considered different from any other industry (Bryman, 2007, pp.693-710; Deem and Brehony, 2005, p.217; Amaral, Meek and Larsen, 2003, pp.10-15; Meek, 2003, pp.1-29; Teichler, 2003, pp.171-185; Reed, 2002, pp.23-34; Enders, 2001, pp.1-23; Trowler, 1998, p.12; Broadbent, Dietrich and Roberts, 1997, pp.1-13; Clarke and Newman, 1997, p.15). These characteristics were mostly described at an empirical level.

Firstly, although the higher education industry was described as a mature industry, demand was growing moderately and financial sustainability of the industry was uneven with low margins or extensive deficits (Fried and Hill, 2009, pp.35-43). The industry was described as fragmented with institutions that provided a wide range of products in a market segmented in terms of degree level, subject matter, students age, full-time vs. part-time attendance, residential vs. commuter living, online vs. campus-based delivery (Fried and Hill, 2009, pp.35-43; Amaral, Meek and Larsen, 2003, pp.10-15; Meek, 2003, pp.1-29). In the industry, branding was believed to be paramount, since it was mostly the brand that was the deciding factor for what institutions students would attend (Fried and Hill, 2009, pp.35-43). Carter and Yeo (2009, p.188) showed that institutions should focus more on recruitment and retention strategies geared towards the actual needs of customers with information covering unique selling propositions like “location”, “reputation and relevance of courses”, “reputation for employability”, “friendliness of the people”, and most importantly “the cost of the program and living expenses” (Carter and Yeo, 2009, p.188).

Secondly, the higher education industry was described as different from other industries, since the consumer (i.e., the student) was the main material (i.e., the student was studying) of the industry. Therefore, the quality of the output (i.e., success of the graduating student) was directly influenced by the quality of the input (i.e., matriculating student) and the student was a vital actor in the production process (Amaral, Meek and Larsen, 2003, pp.10-15; Meek, 2003, pp.1-29). As a consequence, the amount of value created in the production process was largely driven by the efforts of the consumer itself

making the higher education industry an associative good industry (Hansmann and Kraakman, 2000, pp.387-440). Also, higher education institutions were described as selling an intangible good, since evaluating the quality of an educational product was more driven by consumption than by objective criteria. As a consequence, education could be described as an abstract product (Habib and Jungthirapanich, 2009, pp.25-38).

Thirdly, the higher education industry was not depicted as an industry that was autonomous, because most of its funding came from governmental sources (Broadbent, Laughlin and Alwani-Starr, 2010, p.464; Meek *et. al.*, 2010, p.10; Broadbent, 2007, pp.193-198; Amaral, Meek and Larsen, 2003, pp.10-15; Meek, 2003, pp.1-29). As a consequence, higher education institutions were mostly public and non-profit with a major influence from the government since their autonomy was constrained by regulatory and funding obligations (Broadbent, Laughlin and Alwani-Starr, 2010, p.465; Broadbent, 2007, pp.193-198). The non-profit status had a few advantages over a for-profit status, since higher education institutions did not have to pay taxes and higher education institutions had lower cost of capital with the bulk of the capital provided by the government (Fried and Hill, 2009, pp.35-43). Much of the cost of higher education was not paid by students or parents, but by support from governmental sources (Fried and Hill, 2009, pp.35-43). The non-profit status could also be a disadvantage (Bok, 2006, p.21), since an “ivory tower” culture dominated non-profit higher education institutions with academic and collegial values not always focused on helping students learn skills that would be useful to their career (i.e., means to an end) but rather focused on making students learn as such (i.e., end in itself) and with what some described as “little concern for effectiveness and efficiency or for students’ time and tuition” (Fried and Hill, 2009, p.41). Also, non-profit providers were often managed without much concern for costs as long as costs were covered. If non-profit higher education institutions made “profits”, these were spent to subsidize research, low-enrolment majors and to support a significant number of administrators (Fried and Hill, 2009, pp.35-43).

One limitation of this position was that publicly funded institutions struggled to compete, because they were running under a collegial non-profit model. Indeed, due to the current economic conditions, governments were reducing their subsidies (Broadbent, Laughlin and Alwani-Starr, 2010, p.465; Meek *et. al.*, 2010, p.10; Teichler, 2007, p.171-185). Also, according to Broadbent (2007, p.195), the contextual and cultural characteristics of the higher education industry created challenges at many levels including the governance

and the strategic management of the industry as a whole (e.g., academic freedom of “herding cats” or “ivory tower” culture as opposed to “managerial accountability”). Some believed that collegial non-profits institutions may not be sustainable in the long run, unless collegial non-profits institutions began to re-conceptualize themselves in a way that made the complexity of the required inputs, processes, outputs and strategic goals more measurable, tangible and financially sound in line with Management Control Systems (Broadbent, 2007, pp.193-198; Bouckaert and Halligna, 2006, p.4; Bekhradnia, 2005, p.3). As a consequence, whether it was considered a trend, an ideology, or just a set of principles, “managerialism” was transferring from the corporate sector into the public sector in order to increase its effectiveness and efficiency (Meek *et. al.*, 2010, p.10; Trowler, 2010, pp.197-211; Teichler, 2003, pp.171-185; Broadbent, 2007, pp.193-198; Broadbent and Laughlin, 1997, pp.487-507).

2.1.2 For-Profit Managerial Model

The tenets of a managerial culture of hierarchy and changing governmental rules, competitive markets and organizational culture, sustained by private money and investments were supportive of a for-profit model of higher education. For-profit higher education institutions in North America were historically dominated by religiously affiliated institutions that transmitted specific religious values and by for-profit institutions that provided vocational training (Fried, 2008, p.15). Then, the number of for-profit institutions declined and only remained a viable option in specialised niche markets (Tetevova, 2010, pp.807-813; Coleman and Vedder, 2008, p.18). The re-emergence of for-profit institutions in North America was mostly demonstrated when some institutions enrolments started to grow in the online education segment and specialised niche markets (Fried and Hill, 2009). In this context, for-profit may have had two advantages over non-profit.

Firstly, for-profit used online instruction as a viable delivery mechanism with courses designed to have a greater “students per professor” ratio (i.e., higher level of efficiency with lower costs). For-profit was willing to invest in the infrastructure necessary to support online delivery and successful large-scale delivery of online education. As such, for-profit was attractive to the “non-traditional” commuter (i.e., students not interested in students life activities or on-campus offerings) as the “non-traditional” commuter worked

full-time or part-time in addition to going to school (Tetevova, 2010, pp.807-813; Coleman and Vedder, 2008, p.18). For-profit competed on price in this segment, since public institutions did not allocate their subsidies to this segment, but used the segment to generate profits in order to subsidize other programs (Fried, 2008, pp.15).

Secondly, some authors believed that although not as glamorous as the rest of higher education institutions, this for-profit segment with managerial and hierarchical values was successfully attracting private equity interest in North America, because of its focus on financial endowments (Fried, 2008, pp.15) and investment performance (Lerner, Schoar and Wang, 2008, pp.207-222).

One limitation of this position was that higher education institutions were social enterprises (Valenti and Homer, 2010, pp.117-127; Mattei, 2009, p.21). Indeed, higher education institutions were supposed to be organizations that applied commercial strategies to maximize improvements in the community's well-being rather than to maximize profits for external shareholders (Boyatzis, Smith and Blaize, 2006, pp.8-24). As such, the higher education industry was by definition an industry with social objectives. Social enterprises were not expected to offer benefits to their investors, except where doing so would ultimately further their capacity to attain their social goals of contributing to the community's well-being (Boyatzis, Smith and Blaize, 2006, pp.8-24). The for-profit managerial model ignored the social nature of higher education and its mission to improve the level of skills in the community which was paramount for the development of the local workforce and broader society (Valenti and Homer, 2010, pp.117-127; Mattei, 2009, p.21).

2.1.3 Summary

This section introduced the idea that some external and internal strategic changes had taken place in the higher education industry (Bryman, 2007, pp.693-710; Deem and Brehony, 2005, p.217; Amaral, Meek and Larsen, 2003, pp.10-15; Meek, 2003, pp.1-29; Teichler, 2003, pp.171-185; Reed, 2002, pp.23-34; Enders, 2001, pp.1-23; Trowler, 1998, p.12; Broadbent, Dietrich and Roberts, 1997, pp.1-13). It was believed that extreme models of non-profit collegial versus for-profit managerial higher education were both

limited in terms of their potential contribution to the future of the industry. The first position ignored changes in governmental rules, competitive markets and organizational culture, which meant that more accountability and managerial practises were impossible to avoid. The recent collapse of both international and domestic financial systems placed higher education institutions under the same financial pressures and scrutiny as any corporate organisation. The second position ignored the fundamental nature of higher education, which was to serve the needs of the students, the community and the broader society.

It was believed that while it could be recognized that higher education institutions were academic and collegial organizations, it could also be recognized that these academic and collegial systems needed to support accountability using a more managerial approach (Fried, 2008, pp.15; Lerner, Schoar and Wang, 2008, pp.207-222; Broadbent, 2007, pp.193-198). Such an intermediate position could be referred to as “new managerialism” (Meek *et. al.*, 2010, p.10), “New Public Management” (Meek *et. al.*, 2010, p.10; Broadbent and Laughlin, 1997, pp.487-507) or “collegial managerialism”. In this intermediate model, the government used steering media in terms of regulations and provision of funding to achieve specific societal goals with higher education institutions (Broadbent, Laughlin and Alvani-Starr, 2010, pp.461-473) within a principal-agent relationship where the payoff from the principal (i.e., government) depended on the actions taken by the agent (i.e., higher education institutions) (Broadbent, Dietrich and Laughlin, 1996, pp.259-284; Williamson, 1991, pp.75-94). Steering media were societal key drivers for changes (Habermas, 1997, p.367) that implied the use of positional power and/or incentives to initiate actions at an institutional level, as well as the use of Management Control Systems (Broadbent, Laughlin and Alvani-Starr, 2010, p.463).

As a consequence, it was believed that a theoretical framework that described and explained whether and how there was a functional interrelationship between the strategy of higher education institutions and external and internal strategic changes in the higher education industry in terms of changes in governmental rules, competitive markets and organizational culture, would be valuable (Meek *et. al.*, 2010, p.10; Berry *et. al.*, 2009, pp.2-20). In this context, the contingencies of external and internal strategic changes in the higher education industry would play a role within a broad model of Management Control Systems (Berry *et. al.*, 2009, pp.2-20).

2.2 Strategic Management

The purpose of this section is to explore the interrelationships existing between a “collegial managerialism” approach of higher education and the use of strategic management principles in the industry. This section focuses on introducing the concept of strategy and the steps involved in the strategic management process: (i) strategic planning (i.e., with strategic thinking); (ii) strategy implementation (i.e., with strategic alignment); and (iii) strategy evaluation (i.e., with organizational performance). This section also focuses on a debate that opposes the tenets of strategic management by executive leaders as a way to improve accountability within the industry, to the tenets of strategic management by executive leaders as a biased process resulting into minimal improvements. This section also focuses on the Management Control Systems as a way to strategically align higher education institutions.

2.2.1 Strategy

Firstly, strategy could be defined at the theoretical level as the pattern of decisions that determined an institution’s objectives, purposes or goals, and produced the policies and implementation plans to achieve those goals (Mintzberg, Lampel, Quinn and Goshal, 2003, pp.14-22; Porter, 1996, pp.45-60; Porter, 1985, p.23). Johnson, Scholes and Whittington (2008) stated that strategy was the direction and scope of an organisation in the long run. Mintzberg *et. al.* (2003, p.15) added that strategy was the combination of four interdependent elements: (i) a Plan that offered guidance; (ii) a Pattern that offered consistency over time; (iii) a Position that located products in competitive markets; and (iv) a business Philosophy that positioned the vision, mission and values of the business. These series of P’s defined how strategy was formed and how it served the organization (Mintzberg *et. al.*, 2003, pp.14-22).

Secondly, Boyne and Walker (2004, pp.231-252) presented a model that conceptualized strategy in the public sector with two different levels. The first level of strategy in the public sector was the strategic stance or the broad way in which an organization would seek to maintain or improve its performance. This level of the strategy in the public sector was relatively enduring and unlikely to change substantially in the short-term (Zajac and Shortell, 1989, pp.413-430). Once routines were established, these had been

shown to be difficult to change (Barnett and Freeman, 2001, pp.539-558; Amburgey, Kelly and Barnett, 1993, pp.51-73). The strategic stances in this research were based on the Roles & Mandates of higher education institutions as defined by the government (e.g., Auditor General, 2013, pp.1-149; Alberta Advanced Education, 2007, p.1). The second level of strategy in the public sector comprised the specific steps that an organization was taking in order to operationalize the strategic stance. These strategic actions had been shown to be more likely to change in the short-term (Fox-Wolfgramm, Boal and Hunt, 1998, pp.87-126). Together, strategic stances and strategic actions constituted the strategy content (Boyne and Walker, 2004, pp.231-252) of higher education institutions. The concept of strategy content referred to how the organization actually behaved (i.e., enacted strategy) in contrast to strategies that were merely rhetorical or intended but sometimes unrealized (i.e., stated strategy).

Thirdly, strategy was described as linked to the strategic management of the mission, vision, objectives and value statements of higher education institutions in line with their Roles & Mandates as defined by the government (Johnson, Scholes and Whittington, 2008, p.31). According to Mintzberg *et. al.* (2003, pp.14-22), strategic management involved three stages: (i) the planning of the strategy (i.e., strategic thinking); (ii) the implementation of the strategy (i.e., strategy execution and strategic alignment); and (iii) the evaluation of the cross-functional decisions that enabled an organization to assess whether or not it was achieving its objectives (i.e., strategy evaluation and organizational performance).

2.2.2 Strategic Planning and Strategic Thinking

This section focuses on introducing the concept of strategic planning, the first step of the strategic management process and the associated concept of strategic thinking. This section also summarises a debate on the idea that strategic thinking should be a rationale process, but is in fact relatively irrational and/or biased.

At a theoretical level, strategic thinking was defined as a complex process which involved the most sophisticated elements of human judgment to adapt to the high pressure and high complexity of the external and internal business environment (Mintzberg *et. al.*, 2003, pp.14-22; Thomas, 1988, pp.388-400; Weiner and Mahoney, 1981, pp.453-470).

According to Goleman (2009, pp.78-90), strategic thinking was different from strategic planning, since strategic thinking occurred continually and as such not only in the process of using external and internal strategic analysis tools to resolve a specific problem. Strategic thinking was a process of perpetual questioning of the status quo of the strategy in order to aim for excellence, whereas strategic planning was a punctual process applied to resolve specific external and internal strategic problems (Goleman, 2009, pp.78-90). When using strategic thinking, executive leaders were expected to proceed with a complex analysis of external and internal contingencies, which meant complying with the demands from most stakeholders and shareholders while maintaining the organization's competitive advantage given the external and internal strategic analysis (Franken, Edwards and Lambert, 2009, pp.49-73; Makridakis, 1996, pp.1-43; Thomas, Litschert and Ramaswamy, 1991, pp.509-522; Thomas, 1988, pp.388-400; Peters and Waterman, 1982, p.11; Weiner and Mahoney, 1981, pp.453-470).

At an empirical level, however, the managerial cognition literature demonstrated that subjective representations that executive leaders developed about their external and internal strategic environments interfered with the objective analysis of this environment (Johnson and Hoopes, 2003, pp.1057-1070; Osborne, Stubbart and Ramaprasad, 2001, pp.435-454; Reger and Palmer, 1991, pp.22-39; Fiske and Taylor, 1991, p.45; Daft, Sormunen and Parks, 1988, pp.123-139; Nisbett and Ross, 1980, p.45).

Firstly, empirical research showed that cognitive limits precluded executive leaders from developing a complete external and internal strategic analysis of their industry (Fiol and O'Connor, 2003, pp.54-70; Bogner and Barr, 2000, pp.212-226; Daft, Sormunen and Parks, 1988, pp.123-139). Executive leaders developed subjective representations of their environment, which provided them with biased subjective heuristics (i.e., cognitive representations) which became the basis for their biased external and internal strategic analysis. Therefore, executive leaders' biased subjective heuristics, not the objective external and internal environment, affected the organization's strategic direction in a context of "bounded rationality" (Nisbett and Ross, 1980, p.45; March and Simon, 1957, p.9).

Secondly, empirical research on accounting standards also showed that devious motivations resulted in executive leaders tendency to come to self-serving conclusions (Kadous, Kennedy and Peecher, 2003, pp.759-778; Cloyd and Spilker, 1999, pp.299-322;

Cuccia, Hackenbrack and Nelson, 1995, pp.227-248) with a detrimental impact on the reporting of actual performance indicators (Moore, Tetlock, Tanlu and Bazerman, 2006, pp.10-29; Nelson and Tayler, 2006, pp.145-156; Bazerman and Watkins, 2004, p.1; Kadous, Kennedy and Peecher, 2003, pp.759-778; Beeler and Hunton, 2002, pp.3-17; Phillips and Phillips, 2002, pp.78-85; Hackenbrack and Nelson, 1996, pp.43-59). In this context, accounting systems were described as social constructs with: (i) outcomes that were selected because they were visible and measurable as opposed to necessarily relevant; (ii) proxies (e.g., the government representing the tax payers) selecting these outcomes; and (iii) opportunistic behaviours displayed by all the parties involved (Broadbent, 2007, pp.193-1998). Interestingly, empirical research also showed that even when succumbing to bounded rationality and self-serving reasoning, executive leaders generally attempted to maintain an illusion of objectivity (Ashley and Oliver, 2010, pp.115-130; Pyszczynski and Greenberg, 1987, pp.297-340).

2.2.3 Strategy Execution and Strategic Alignment

This section focuses on introducing the concept of strategy execution, the second step of the strategic management process and the associated concept of strategic alignment. Strategy execution (i.e., or implementation) consists in creating a portfolio of changes that delivers the chosen strategy, and in attracting, allocating and managing the necessary resources to deliver these changes (Bossidy and Charan, 2002, p.34; Hrebiniak and Joyce, 1984, p.65). As a consequence, strategy execution implies an understanding of a wide range of factors with associated strategic and financial projections.

2.2.3.1 Strategy Execution

This section focuses on introducing the concept of strategy execution. It is critical for executive leaders to excel at strategy execution in order to ensure the organization's success (Habib and Jungthirapanich, 2009, pp.25-38; Hrebiniak and Joyce, 1984, p.65).

Strategy execution in a corporate environment was described as difficult to achieve for a series of reasons (Habib and Jungthirapanich, 2009, pp.25-38; Thomas, Litschert and Ramaswamy, 1991, pp.509-522; Thomas, 1988, pp.388-400; Hrebiniak and Joyce, 1984, p.65; Weiner and Mahoney, 1981, pp.453-470).

Firstly, pressures from stakeholders and shareholders for greater profitability forced executive leaders to redefine their strategy frequently in order to remain aligned with stakeholders and shareholders changing needs. Shareholders and/or stakeholders pressured executive leaders for them to comply with their changing demands. However, these frequent changes in strategy were neither necessary nor effective/efficient, despite the viewpoint of the stakeholders and shareholders, as they were not necessarily aligned with the complexity of changes in external and internal competitive markets (Habib and Jungthirapanich, 2009, pp.25-38; Lichtenstein and Dade, 2007, pp.15-31). As a result of this relentless pressure from stakeholders/shareholders, empirical research has shown that strategies were executed within shortened periods of time and executive leaders could not dedicate enough time and resources to these demands (Habib and Jungthirapanich, 2009, pp.25-38; Lichtenstein and Dade, 2007, pp.15-31).

Secondly, because of increased complexity of organizations and business environments, strategic implementation plans were likely to be too complex to execute resulting in increased risks for failure due to oversight (Franken, Edwards and Lambert, 2009, pp.49-73; Habib and Jungthirapanich, 2009, pp.25-38).

Thirdly, low-level of involvement from employees across all functions was a typical factor that led to failure. Indeed, in the early stages, bureaucratic and unnecessary policies often ended up delaying actions from employees which resulted in a lack of motivation. Strategic alignment of employees was required for commitment to change to be observed and for the development of successful implementation plans (Ashley and Oliver, 2010, pp.115-130; O'Reilly, Caldwell, Chatman, Lapiz and Self, 2010, pp.104-113; Habib and Jungthirapanich, 2009, pp.25-38).

Fourthly, because of the large number of change programs, organizational resources could already be allocated and executive leaders competed to get left-over resources which made the implementation plans even more difficult to follow successfully (Habib and Jungthirapanich, 2009, pp.25-38).

Fifthly, the implementation of a strategy relied on the notion of strategic alignment, since strategic alignment was the synchronization of the goals of an institution with the implementation plans developed for the different functional areas of the institution, like finance, operations, Human Resources, etc. (Kaplan and Norton, 2006, pp.167-176;

Kaplan and Norton, 2004, p.15; Porter, 1980, pp.11-15) and strategic alignment had been empirically shown to positively impact organizational performance (Christiansen and Higgs, 2008, pp.13-33).

2.2.3.2 Strategic Alignment

This section introduces the concept of strategic alignment and the associated concept of Management Control Systems. Indeed, strategy execution often implies the use of Management Control Systems to align the organization to its strategic stance (Whittington and Pany, 2012, p.276; Berry, Broadbent and Otley, 2005, p.6; Malni and Brown, 2008, pp.287-300; Portnoff, 2007, p.15; Langfield-Smith, 1997, pp.207-232).

2.2.3.2.1 Management Control Systems

Firstly, Management Control Systems were described as “the process of guiding organizations into viable patterns of activity in a changing environment” (Berry, Broadbent and Otley, 2005, p.3). Anthony and Govindarajan (2007, p.5) described Management Control Systems as “the process by which managers influence other members of the organization to implement the organization’s strategies” and “aid management for steering an organization toward its strategic objectives and competitive advantage”. Management Control Systems were also described as mechanisms used to channel behaviours and actions in a way that was aligned with pre-determined goals (Berry *et. al.*, 2009, pp.2-20; Malni and Brown, 2008, pp.287-300; Portnoff, 2007, p.15; Spekle, 2001, pp.419-441; Thomas, Litschert and Ramaswamy, 1991, pp.509-522; Weiner and Mahoney, 1981, pp.453-470). This process required the establishment of rules or norms to supervise behaviours, measure the quantity and quality of inputs, processes and outputs and correct strategic, financial and behavioural deviations (Malni and Brown, 2008, pp.287-300; Portnoff, 2007, p.15; Spekle, 2001, pp.419-441; Thomas, Litschert and Ramaswamy, 1991, pp.509-522; Weiner and Mahoney, 1981, pp.453-470).

Secondly, Management Control Systems could be used to exercise control over authority delegated to others (e.g., government to higher education institutions). Such systems involved developing implementation plans and associated projections to monitor progress towards the accomplishment of the implementation plans (Whittington and Pany, 2012, p.276; Malni and Brown, 2008, pp.287-300; Portnoff, 2007, p.15; Berry, Broadbent and

Otley, 2005, p.4; Langfield-Smith, 1997, pp.207-232). Financial forecasts, budgeting, accounting and auditing systems were prime examples of Management Control Systems, as they established goals and evaluated actual performances with yearly reporting systems overseen by independent auditing bodies (Whittington and Pany, 2012, p.276; Malni and Brown, 2008, pp.287-300; Portnoff, 2007, p.15; Langfield-Smith, 1997, pp.207-232).

Thirdly, according to Berry, Broadbent and Otley (2005, p.13), an important distinction could be made between hard and soft Management Control Systems, with: (i) hard Management Control Systems promoting clear objectives and decision processes associated to quantitative measures of performance (e.g., accounting standards as defined by the Auditor General Act, 1985); and (ii) soft Management Control Systems promoting vague objectives and decisions processes associated to ill-defined, qualitative measures of performance, or deviations in the reporting of quantitative measures of performance (e.g., deviations from accounting standards as defined by the Auditor General Act, 1985). Anthony and Govindarajan (2007, p.8) qualified these different Management Control Systems as formal and informal. Formal Management Control Systems were deliberately designed and included rules, regulations, policies, standard operating procedures, manuals and accounting & budgeting systems. Informal Management Control Systems were not deliberately designed and included work ethics, management style and organizational culture. Both systems influenced executive leaders and employees' behaviours and consequently affected the degree to which strategic alignment could be achieved (Berry *et. al.*, 2009, pp.2-20).

2.2.3.2.2 *Contingencies and Management Control Systems*

Contingency theories have been used over the past two decades to describe and explain organizational change at a macro-level (Berry *et. al.*, 2009, pp.2-20). Indeed, Management Control Systems have been shown, in case studies, to evolve in line with the contingencies of the external and internal strategic environment of an organization (Batoool, 2011, pp.48-55; Berry *et. al.*, 2009, pp.2-20; Bakar and Berry, 1993, pp.55-63). Depending on the contingencies of the organization (e.g., external and internal strategic analysis), executive leaders have been shown to rely more or less on rule-based, market-based or culture-based Management Control Systems to seek for compliance (Batoool, 2011, pp.48-55; Portnoff, 2007, p.15; Cameron and Quinn, 2006, p.23; Bakar and Berry, 1993, pp.55-63; Lebas and Weigenstein, 1986, pp.259-272; Ouchi 1980, pp.129-141).

Rule-based Management Control Systems relied on controlling functional operations of the organization through procedures and bureaucratic arrangements (Batool, 2011, pp.48-55; Bakar and Berry, 1993, pp.55-63; Lebas and Weigenstein, 1986, pp.259-272; Ouchi 1980, pp.129-141). Rule-based Management Control Systems were associated with evaluations to ensure that correct procedures were followed, were concerned with maintaining the existing social order as determined by hierarchies, and relied on the use of accounting and performance systems, data or reports to evaluate performances in line with policies (Batool, 2011, pp.48-55; Bakar and Berry, 1993, pp.55-63; Lebas and Weigenstein, 1986, pp.259-272; Ouchi 1980, pp.129-141).

Market-based Management Control Systems relied on determining how resources were related to the bottom line in a for-profit context (i.e., profit or reduced costs) (Batool, 2011, pp.48-55; Bakar and Berry, 1993, pp.55-63; Lebas and Weigenstein, 1986, pp.259-272; Ouchi 1980, pp.129-141). Market-based Management Control Systems often used financial exchanges in line with the needs of the market. Even if financial information was an objective type of information, this could be misleading because information was costly, human cognition was limited and executive leaders had biased preferences that motivated their understanding of non-financial and financial metrics (Malni and Brown, 2008, pp.287-300; Kadous, Kennedy and Peecher, 2003, pp.759-778; Cloyd and Spilker, 1999, pp.299-322; Cuccia, Hackenbrack and Nelson, 1995, pp.227-248; Bakar and Berry, 1993, pp.55-63).

Culture-based Management Control Systems relied on the idea that organizational culture could also be an important element of control (Batool, 2011, pp.48-55; Portnoff, 2007, p.15; Cameron and Quinn, 2006, p.23; Bakar and Berry, 1993, pp.55-63; Lebas and Weigenstein, 1986, pp.259-272; Ouchi 1980, pp.129-141). Ouchi (1980, p.130) proposed a model that supported the notion that organizations could rely on patterns of socialization as their primary control mechanism. In culture-based Management Control Systems, control was linked to the core beliefs that members of an organization hold (i.e., a common system of meanings which shaped organizational behaviour). Indeed, culture could be described as the norms, values and symbols, which enabled members of an organization to do their job (Batool, 2011, pp.48-55; Bakar and Berry, 1993, pp.55-63). Culture was expected to be a key factor for attaining effectiveness and efficiency, since it improved the relationships and wellbeing of the organization's members and their identification with the organization (Batool, 2011, pp.48-55; Bakar and Berry, 1993,

pp.55-63) and as such controlled the behaviours of the organization's members. This Management Control System could be formally overseen by a strategic Human Resources department.

2.2.4 Strategy Evaluation and Organizational Performance

This section focuses on introducing the concept of strategy evaluation, the third step of the strategic management process and the associated concept of organizational performance.

At a theoretical level, organizational performance was described as an indicator that needed to be used within the strategic management process to decide on the success of the changes implemented (Mintzberg *et. al.*, 2003, pp.14-22). Organizational performance was expected to be managed using performance management systems that ensured goals were consistently met. Organizational performance was tracked and measured on dimensions like: financial performance (e.g., shareholders return), customers' service (e.g., customers' satisfaction surveys), corporate social responsibility (e.g., corporate citizenship) and/or employees' satisfaction (i.e., employees' satisfaction surveys) (Mintzberg *et. al.*, 2003, pp.14-22). Performance management systems could focus on the performance of an organization, a department or specific employees (Mintzberg *et. al.*, 2003, pp.14-22). For example, strategic maps or balanced scorecards were strategic management systems that were used extensively in business, government, and non-profit organizations, to align business activities to the vision and strategy of the organization, improve internal and external communications, and monitor organizational performance against strategic and financial forecasts (Kaplan and Norton, 1996, p.63; 2004, p.12; 2006, pp.167-176). Kaplan and Norton (2006, p.167) believed that the primary benefit of performance management systems was to gauge the success of a strategy. Performance management systems, like balance scorecards, added strategic non-financial performance measures to financial metrics and gave executive leaders a more balanced approach to their organizational performance (Kaplan and Norton, 1996, p.63; 2004, p.12; 2006, pp.167-176).

In the higher education industry, empirical research has shown relentless pressure towards using productivity metrics in accounting and reporting practises (Gordon and Fisher,

2008, pp.217-255; Broadbent and Laughlin, 2005, p.81). According to Gate and Stone (1997, pp.1-35) productivity is a measure of outputs per unit of inputs generally leading to the use of outputs/inputs ratios. However, measuring productivity in the higher education industry was difficult, because outputs (i.e., success of students) were directly influenced by inputs (i.e., matriculating students) and students were vital actors that could not be dissociated from the educational process (Broadbent, 2007, pp.193-198; Amaral, Meek and Larsen, 2003, pp.10-15; Meek, 2003, pp.1-29). Problems in measuring inputs and outputs did not allow for straightforward outputs/inputs ratios measures and led to the need to rely on indirect measures (Gate and Stone, 1997, pp.1-35). As a consequence, indirect and workable definitions of productivity in the higher education industry focused on two dimensions: (i) effectiveness; and (ii) efficiency (Broadbent, 2007, pp.193-198; Gate and Stone, 1997, pp.1-35). Typically, effectiveness related to the extent to which the higher education institution met the needs and demands of stakeholders like students, faculty, local communities, governments, industry (e.g., number of graduates or total Full Time Equivalent students) (Gate and Stone, 1997, pp.1-35). Typically, efficiency related to the level of effectiveness obtained from a given amount of resources (e.g., operating grant per Full Time Equivalent students) (Gate and Stone, 1997, pp.1-35).

In the higher education industry, since governmental funding was limited and because of the recent economic downturn, concerns over effectiveness (e.g., teaching and research) and efficiency (i.e., using fewer resources for the same quality of teaching and research or using the same level of resources for higher quality of teaching and research) had been growing. The notion of effectiveness and efficiency in the higher education industry was associated to many different dimensions and theoretical frameworks of performance management or accounting systems (Meek *et. al.*, 2010, p.10; Gordon and Fisher, 2008, pp.217-255; Broadbent, 2007, pp.193-198; Otley, 1999, pp.363-382).

Firstly, academic indicators were used as means of measuring effectiveness in the higher education industry. The first academic indicator was related to professionalism or to the demonstration of a particular expert knowledge in a specific area (DaConceicao DaCosta Marques and Mano, 2012, pp.303-315; Meek *et al.* 2010, p.36; Carroll, 1999, pp.5-29; Broadbent, Dietrich and Roberts, 1997, pp.1-13). This implied that academic activities needed to be regulated through professional controls (e.g., peer-reviewed articles) for academics to be seen as professionals (DaConceicao DaCosta Marques and Mano, 2012, pp.303-315; Meek *et. al.* 2010, p.36; Carroll, 1999, pp.5-29; Broadbent, Dietrich and

Roberts, 1997, pp.1-13). This also implied that academic freedom became secondary. Indeed, there was a growth in regulatory frameworks surrounding higher education institutions, which was seen by academics as impacting negatively their academic freedom (DaConceicao DaCosta Marques and Mano, 2012, pp.303-315; Meek *et. al.* 2010, p.36; Gordon and Fisher, 2008, pp.217-255). A second academic indicator in the higher education industry was shown to be related to the concept of Corporate Social Responsibility. According to Carroll (1999, p.6), Corporate Social Responsibility referred to the economic, legal, ethical and philanthropic responsibilities of an institution. In the context of the higher education industry, Corporate Social Responsibility represented voluntary actions that higher education institutions took to manage their economic, social and environmental impact and to contribute to the wider societal development (Broadbent, Gallop and Laughlin, 2010, pp.506-531; Collier and Esteban, 2007, pp.19-33; Carroll, 1999, pp.5-29). According to Tetreanova (2010, p.807), in the context of the higher education industry, Corporate Social Responsibility could also be seen as a statutory responsibility, where higher education institutions executive leaders, faculty and staff behaved in a way that fulfilled their economic and social mission (e.g., developing skills in the community or stewardship to the community).

Secondly, business type indicators were also used as means of measuring effectiveness in the higher education industry (Gordon and Fisher, 2008, pp.217-255; Gate and Stone, 1997, pp.1-35). A first business type indicator was shown to be related to endowments and tuition rates, with endowments being the money/property donated to institutions by public charity, private foundations and/or trusts, and with tuition rates depending on the levels of endowments (i.e., higher education institutions with smaller endowments tended to use these endowments to fill seats and maximize tuitions revenues) (Gordon and Fisher, 2008, pp.217-255; Gate and Stone, 1997, pp.1-35). A second business type indicator was shown to be related to enrolments and retention type measures, with higher education institutions reporting enrolments in terms of Full Time Equivalent (i.e., FTE) students and percentages of students graduating in five years (i.e., outcomes related to attracting and retaining students) (Gordon and Fisher, 2008, pp.217-255; Gate and Stone, 1997, pp.1-35). A third business type indicator was shown to be related to accreditation, with accreditation agencies implementing guidelines and collection of outcome data related to the quality of programs for periodic accreditation (Gordon and Fisher, 2008, pp.217-255; Gate and Stone, 1997, pp.1-35).

Thirdly, some financial indicators were shown to be used as means of measuring efficiency in the higher education industry (Broadbent and Laughlin, 2005, pp.75-97; Otley, 1999, pp.363-382). This perspective led to the notion of relative revenue ratio, since higher education institutions constantly needed to evaluate how research and teaching revenues compared to research and teaching costs to the government in order to guarantee their viability (Glass, McCallion, McKillop, Rasaratman and Stringer, 2009, pp.249-267). The consolidation of financial information was also considered to be a valuable accounting and management tool (DaConceicao DaCosta Marques and Mano, 2012, pp.303-315). The accounts of higher education institutions were shown to be presented according to standards and principles that were legally established (e.g., Auditor General's reports on statements of financial position as per the Auditor General Act, 1985). The consolidation of accounts was shown to display information on the financial status, its changes, and results of transactions carried out by the higher education institutions in a way that was regulated (e.g., consolidated statements of financial position, consolidated statements of operations, changes in net assets and cash flow, and Auditor General's reports). The consolidation of accounts prepared financial statements to portray an appropriate image of the financial status of the higher education institution. It encouraged more transparent and efficient management, since it facilitated a comparison of the financial status over time and across institutions (DaConceicao DaCosta Marques and Mano, 2012, pp.303-315; Broadbent, 2007, pp.193-198; Broadbent and Laughlin, 2005, pp.75-97).

It was important to note, however, that qualitative and/or quantitative performance management tools could both be fertile ground for motivated-reasoning processes. Non-financial performance measures were more subjective and more ambiguous to interpret than financial measures, but financial performance measures could still be affected by motivated-reasoning processes (Krishnan, Luft and Shields, 2005, pp.1163-1192; Ittner and Larcker, 2003, pp.88-95). Any decrease in precision provided executive leaders with latitude in over-interpreting evidence and motivated-reasoning processes. An executive leader in search of preference-consistent information could find a reasonable amount of supportive data and stop searching or disregard disconfirming evidences. If performance accounting or management tools were ambiguous or complex enough to allow different assessments in terms of success for strategic initiatives, executive leaders with different preferences tended to reach different conclusions (Krishnan, Luft and Shields, 2005, pp.1163-1192; Ittner and Larcker, 2003, pp.88-95; Ittner and Larcker, 1997, pp.522-534;

Ittner and Larcker, 1995, pp.1-3). This meant that accounting and performance management systems needed to be relational as opposed to transactional, and to consider the context of the higher education industry (i.e., effectiveness and efficiency measures as opposed to productivity measures because the higher education industry is an “associative good” industry) and the culture of the higher education industry (i.e., deviance, resistance and opportunistic behaviours) (Oakes and Berry, 2009, pp.343-375; Broadbent, 2007, pp.193-198).

2.2.5 Summary

This section focused on the way a “collegial managerialism” approach to higher education was implemented to increase accountability and managerial practises in the industry. Firstly, it was believed that extreme positions in terms of the value of managerial practises and strategic management existed. The first position stated that strategic management by executive leaders was a pre-requisite for improved organizational performance (i.e., accountability) (Christiansen and Higgs, 2008, pp.13-33; Kaplan and Norton, 2004, p.15; Porter, 1980, pp.11-15), whereas the second position stated that strategic management by executive leaders was a biased process that led to biased decisions and reduced actual organizational performance (i.e., accountability) (Fiol and O’Connor, 2003, pp.54-70; Bogner and Barr, 2000, pp.212-226; Daft, Sormunen and Parks, 1988, pp.123-139).

It was believed that while it could be recognised that strategic management by executive leaders had limitations, some of the steps involved in the process of strategic management could be beneficial to the higher education industry as long as executive leaders were aware of the potential for bounded rationality and motivated reasoning. It was also believed that higher education institutions had seen some changes in governmental rules (i.e., the fall in the value of endowments and uncertainties about balance sheets and financial commitments from the government) that led to changes in organizational culture (i.e., “collegial managerialism”) (Portnoff, 2007, p.15; Cameron and Quinn, 2006, p.23; Lebas and Weigenstein, 1986, pp.259-272). It was also believed that changing conceptions had been driving the use of strategic management in the industry with a stronger focus on the competitive markets environment (i.e., alternative sources of funding and implications for the bottom-line). It was finally believed that these changes

had some consequences in terms of the Management Control Systems that were set up to align higher education institutions to the changing Roles & Mandates provided by the government (Whittington and Pany, 2012, p.276; Malni and Brown, 2008, pp.287-300; Broadbent, 2007, pp.193-198; Portnoff, 2007, p.15; Langfield-Smith, 1997, pp.207-232).

As a consequence, it was believed that a theoretical framework that described and explained whether and how there was a functional interrelationship between the strategic stance of higher education institutions and organizational performance (i.e., strategic alignment) with a mediating role played by Management Control Systems, would be valuable (Meek *et. al.*, 2010, p.10; Berry *et. al.*, 2009, pp.2-20). In this context, Management Control Systems would play a mediating role in the formal strategic alignment to the governmental rules within a broad model of Management Control Systems (Berry *et. al.*, 2009, pp.2-20)

2.3 Executive Leadership

The purpose of this section is to explore the interrelationships existing between a “collegial managerialism” approach to higher education and the profile of executive leadership in the higher education industry. The purpose of this section is also to explore the interrelationships existing between strategic management and executive leadership in the higher education industry (Kjelin, 2009, pp.37-57; Hughes and Colarelli, 2005, p.45; Boal and Hoojberg, 2000, p.515). This section introduces the concepts of academic leadership and educational management, and the notion of executive leadership’s success (i.e., impact of executive leadership on organisational performance). This section also focuses on a debate that opposes the tenets of an interrelationship existing between executive leadership and the success of the organization (i.e., organizational performance) and the tenets of a lack of interrelationship existing between executive leadership and the success of the organization (i.e., organizational performance).

2.3.1 Educational Leadership

This section presents the concepts of academic leadership and educational management. Indeed, with the introduction of a managerial approach to the higher education industry, the profile of executive leadership moved from a profile of academic leadership to a profile of educational management.

At a theoretical level, the concepts of management and leadership were two different and complementary concepts (Meek *et. al.*, 2010, p.10; Yelder and Codling, 2004, pp.315-328; Kekale, 2011, pp.556-563; Law and Glover, 2000, p.8). Management referred to an orientation towards results and goals, where managers organised tasks and systems using principles of strategic management (Bush, 2007, p.391; Bush, 1999, pp.239-252). Leadership referred to an orientation towards human relations and organising people, since leaders had an expected inspirational and galvanising impact on the followers as they created a vision fostering a culture that compelled followers (Agho, 2009, pp.159-166; Bass and Bass, 2008, p.68; Bush, 2007, p.391; Bush, 1999, pp.239-252).

These separate theoretical concepts merged into one profile of executive leadership that was specific to the higher education industry (Bryman, 2007, pp.693-710; Deem and Brehony, 2005, p.217; Amaral, Meek and Larsen, 2003, pp.10-15; Meek, 2003, pp.1-29; Teichler, 2003, pp.171-185; Reed, 2002, pp.23-34; Enders, 2001, pp.1-23; Trowler, 1998, p.12; Clarke and Newman, 1997, p.15).

Firstly, research showed that executive leadership in higher education institutions was mostly distributed as compared to other industries (Kezar, Carducci and Contreras, 2006, p.15; Yelder and Codling, 2004, pp.315-328; Broadbent, Dietrich and Roberts, 1997, pp.1-13). Distributed leadership was a leadership practice that was shaped by the interactions of all stakeholders (i.e., government, executive leaders, faculty, staff, students, business community, etc.) and the external and internal strategic analysis (i.e., funding mechanisms, regulations, audits, customers' demands, and institutional competition) rather than by the actions of one individual leader exclusively (Kezar, Carducci and Contreras, 2006, p.15; Knight and Trowler, 2001, pp.20-56). Individuals, teams and executive leaders were shown to collectively influence strategic directions in the higher education industry making strategic management in this industry less flexible than in other industries, as a series of stakeholders had to be consulted for decisions to be

successfully implemented (Bolden, Petrov and Goslin, 2008, pp.257-277; Kezar, Carducci and Contreras, 2006, p.15).

Secondly, research showed that executive leadership in higher education institutions was largely servant leadership as compared to other industries (Tetreova, 2010, p.807; Borosky and Grief, 2009, pp.113-120). Servant leadership was described as characterized by a focus on the aim of serving the population in the surrounding communities and by specific leadership principles like stewardship, sustainability and commitment to the growth of the people inside the community (Broadbent, Gallop and Laughlin, 2010, pp.506-531; Tetreova, 2010, p.807; Borosky and Grief, 2009, pp.113-120).

Thirdly, research showed that executive leadership in higher education institutions was moving towards a more managerial profile as opposed to an academic profile (Meek *et. al.*, 2010, p.10; Bass and Bass, 2008, p.68; Hoyle and Wallace, 2005, p.16; Yelder and Codling, 2004, pp.315-328; Broadbent, Dietrich and Roberts, 1997, pp.1-13). In the past, promotion to senior positions in the higher education industry was mostly based on an academic process resulting in the emergence of academic leaders who may not have had the skills for strategic and operational management (Law and Glover, 2000, p.8; Broadbent, Dietrich and Roberts, 1997, pp.1-13). Research showed that academic leadership used to be vested in people because of their academic expertise and charisma (Meek *et. al.*, 2010, p.10; Yelder and Codling, 2004, pp.315-328; Law and Glover, 2000, p.8; Broadbent, Dietrich and Roberts, 1997, pp.1-13). However, academic leaders that carried responsibility for academic development and directions without the strategic and operational skills were shown to quickly experience loss of job satisfaction (Yelder and Codling, 2004, pp.315-328). Academic leaders inherited increasingly high administrative workloads for compliance requirements from internal and external agencies (Broadbent, Dietrich and Roberts, 1997, pp.1-13), which tended to be areas where they under-performed because of their lack of business understanding (Yelder and Codling, 2004, pp.315-328). Therefore, promotion to senior positions in the higher education industry has been shown to be increasingly focused on managers skilled in strategic and operational management with less of an academic background (Meek *et. al.*, 2010, p.10; Yelder and Codling, 2004, pp.315-328; Broadbent, Dietrich and Roberts, 1997, pp.1-13). Managerial positions in higher education institutions increasingly reflected the organisational hierarchy with appointments made from above (Meek *et. al.*, 2010, p.10).

With the profile of executive leaders changing from a profile of academic leaders to a profile of educational managers, the pressure to focus on executive leaders' measurable success has been growing (Meek *et. al.*, 2010, p.10; Kezar, Carducci and Contreras, 2006, p.15; Broadbent, Dietrich and Roberts, 1997, pp.1-13).

2.3.2 Executive Leadership and Organizational Performance

This section introduces the concept of executive leaders' success and how organizational performance relates to executive leadership. This section also summarises a debate opposing the tenets of the idea that executive leadership has a strong impact on organizational performance, to the tenets of the idea that executive leadership has only a marginal impact on organizational performance.

Some authors supported the idea that executive leadership had a strong impact on organizational performance. According to Ekaterini (2010, p.14), the influence of executive leadership's characteristics on organizational performance, organisational commitment and organizational satisfaction has been well established empirically (Barbuto and Burbach, 2006, pp.51-54; Bass, Avolio, Jung and Berson, 2003, pp.207-218; Vries, Roe and Taillieu, 1998, pp.486-501; Cairns, 1996, p.115; Drucker, 1954, p.12). Miles and Snow (1978, p.36-52) distinguished: (i) prospector leaders that faced the entrepreneurial challenge of locating and exploiting new products and market opportunities with returns; (ii) analyser leaders that faced the operational problem of maintaining the effectiveness and efficiency of established products or services while remaining flexible enough to pursue new business activities that were uncertain; (iii) defender leaders that faced the entrepreneurial problem of maintaining a stable share of the market; and (iv) reactor leaders that did not have a systematic strategy, design or structure. Lichtenstein and Dade (2007, pp.15-31) empirically demonstrated that prospectors and analysers significantly outperformed defenders and reactors in operational and financial performances. This finding indicated that, in a corporate environment, organizations whose executive leaders innovated significantly outperformed those whose executive leaders did not innovate (Vries, Roe, and Taillieu, 1998; Cairns, 1996, p.115). Executive leaders who wanted the best results had to use the executive leadership style and characteristics that best suited the external and internal strategic environment (Fu, Tsui, Liu, and Li, 2010, pp.222-254; Goleman, 2009, pp.78-90;

Hambrick, 2003, pp.115-118). In other words, executive leaders had to have the leadership style and characteristics that were the best aligned with the business environment in order to improve organizational performance (Fu, Tsui, Liu, and Li, 2010, pp.222-254; Goleman, 2009, pp.78-90; Hambrick, 2003, pp.115-118).

Other authors supported the idea that executive leaders' influence on organizational performance was limited by environmental, organizational and legitimacy constraints (Hannan and Freeman, 1984, pp.149-164; DiMaggio and Powell, 1983, pp.147-160; Pfeffer and Salancik, 1978, p.48).

Firstly, regarding the Chief Executive Officer (i.e., CEO)'s impact on organizational performance, empirical research showed that the impact of executive leaders was modest at best (Finkelstein and Hambrick, 1996, p.23) and associated to factors outside the control of a single individual (Podolny, Khurana and Hill-Popper, 2005, pp.1-36). Executive leadership's characteristics only explained 29.2% of the variance in corporate profitability and 12.7 % of the variance in business segment profitability (Finkelstein and Hambrick, 1996, p.23). Crossland and Hambrick (2007, p.768) showed that executive leaders' impact on organizational performance mostly emanated from the environment and the broad social and economic system within which the executive leader operated. Indeed, some macro-environments allowed executive leaders of publicly held corporations considerably more latitude of actions than others. Anecdotal evidence suggested that American corporate leaders compared to executive leaders in other countries were celebrities (Hayward, Rindova and Pollock, 2004, pp.637-654) and were paid far more incentive compensation than their peers (Conyon and Peck, 1998, pp.146-157). This tended to increase their risk-taking behaviours, which increased their short-term performance but decreased their long-term performance (Crossland and Hambrick, 2007, pp.767-789).

Secondly, regarding the Board of Directors impact on organizational performance, Boards of Directors were shown to have a real ability to monitor and improve executive leaders' performance, but only under certain circumstances. Often, a CEO was in a dual situation, since he/she both served as a CEO and as the Chair of the Board of Directors (i.e., CEO duality). Almost 80% of corporations in the United States appointed the CEO to both positions (McDonald, and Westphal, 2010, p.9; Faleye, 2007, pp.239-259; Worrell, Nemec and Davidson, 1997, pp.499-507). Powerful Boards of Directors were less likely

to favour duality (Faleye, 2007, pp.239-259; Finkelstein and D'Aveni, 1994, pp.1079-1108) because it had been demonstrated in longitudinal studies that organizations with independent governance structures (i.e., no CEO duality) showed consistently better financial performances and accounting practises than organizations with unitary governance structures (i.e., CEO duality) (McDonald and Westphal, 2010, p.36; Rechner and Dalton, 1991, pp.155-161). For example, it was observed that organizations with independent governance structures had lower costs and higher returns than organizations with unitary governance structures (Pi and Timme, 1993, pp.515-530). As such, powerful Boards of Directors and independent governance structures (i.e., no CEO duality) had been shown to be in the best interest of organizations (McDonald and Westphal, 2010, p.36).

Thirdly, regarding the executive team's impact on organizational performance, CEOs needed to be challenged in order to critically assess business risks (Conlon and Smith, 2010, pp.53-55). The Top Management Team was described as an executive leadership structure that pursued organizational strategies with the CEO and the Board of Directors (Manz and Simms, 1990, pp.18-35). A successful Top Management Team was a contributing factor for a successful CEO to emerge, as no great action was possible without great individuals supporting the CEO's actions (Collins, 2001, p.56). CEOs needed to hold the organization's senior leaders accountable for conducting strategic changes and Human Resources needed to play an enablement role in this accountability process (Collins, 2001, p.56). According Simsek (2007, p.654), individuals that most closely influenced the CEO needed to be members of the Top Management Team. The CEO-Top Management Team interface was described as one important mechanism for strategy to be implemented successfully. Also, Finkelstein and Hambrick (1996, p.23) showed that Top Management Teams affected an organization's attitude toward risk, which in turns positively influenced organizational performance. Indeed, Top Management Teams shaped the risk-taking behaviour of the CEO, and Top Management Team's risk-taking propensity had been shown to be a mediating causal variable between the CEO's impact and organizational performance (Simsek, 2007, pp.653-662; Finkelstein and Hambrick, 1996, p.23).

2.3.3 *Summary*

This section introduced the notion of academic leadership and educational management in a way that helped describe and explain a “collegial managerialism” approach to executive leadership in the higher education industry. Also, extreme positions in terms of the impact of executive leadership on the success of the organization existed. The first position stated that executive leaders had a major impact on organizational performance (Ekaterini 2010, pp.14-16; Lichtenstein and Dade, 2007, pp.15-31; Vries, Roe and Taillieu, 1998, pp.486-501; Cairns, 1996, p.115; Drucker 1973, p.18). The second position stated that executive leaders had only a moderate impact on organizational performance, with a mediating role played by the Board of Directors and the Top Management Team (Crossland and Hambrick, 2007, pp.767-789; Podolny, Khurana and Hill-Popper, 2005, pp.1-36; Finkelstein and Hambrick, 1996, p.23).

It was believed that while it could be recognised that executive leaders had a limited impact when there was a lack of strategic alignment between the Board of Directors, executive leaders, the Top Management Team, faculty and staff, the strategic alignment of these parties (i.e., through Management Control Systems) would lead to the success of executive leadership and associated improved organizational performance.

As a consequence, it was believed that a theoretical framework that described and explained whether and how there was a functional interrelationship between executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Management Control Systems, would be valuable (Meek *et. al.*, 2010, p.10; Berry *et. al.*, 2009, pp.2-20). In this context, Management Control Systems would play a mediating role in the formal strategic alignment of higher education institutions to governmental rules within a broad model of Management Control Systems (Berry *et. al.*, 2009, pp.2-20)

2.4 Human Resources

At a theoretical level, the fact that executive leaders did not necessarily have any impact on organizational performance and the fact that other players in the environment would be important to predict the interrelationship existing between executive leadership and organizational performance, could be described and explained using a capability development approach (Albers-Mohrman and Worley, 2009, pp.431-443; Oosterlaken, 2009, pp.97-102).

A capability development approach separates the concepts of capabilities and functionings in executive leaders. Indeed, a capability is described as an ability to achieve whereas a functioning is the actual achievement by executive leaders (Albers-Mohrman and Worley, 2009, pp.431-443; Oosterlaken, 2009, pp.97-102). According to Oosterlaken (2009, p.98), one of the crucial insight of the capability development approach was that potential executive leaders ability to achieve (i.e., capability) did not automatically mean executive leaders' actual achievement (i.e., functioning). Since relevant knowledge resided throughout the institution (e.g., Board of Directors, Top Management Team, faculty and staff), institutions needed mechanisms to create a rich flow of knowledge and inform executive leaders on the way to adapt to their organization and reversely (Evans, 2010, pp.19-20; Agho, 2009, pp.159-166; Kollenscher, Ronen and Farjoun, 2009, pp.35-45; Miles and Snow, 1984, pp.36-52) so that executive leaders' capabilities became executive leaders' functioning. As such, executive leaders' capability development implied the use of strategic alignment to turn capabilities into functioning (Evans, 2010, pp.19-20; Agho, 2009, pp.159-166; Kollenscher, Ronen and Farjoun, 2009, pp.35-45).

The purpose of this section is to explore the interrelationships existing between strategic alignment and the role played by Human Resources. This section introduces the concepts of strategically aligned recruitment and strategically aligned development of executive leaders, faculty and staff, and the strategic role played by Human Resources. This section also focuses on a debate that opposes the tenets of transactional Human Resources to the tenets of strategic Human Resources based on the principles of the Strategic Human Capital Theory.

2.4.1 Executive Leaders Recruitment (i.e., Capability)

This section focuses on the idea that Human Resources practitioners are expected to be expert in the recruitment of the right people to fit the job and the organization (i.e., strategic alignment). As a consequence, their impact is expected to be major to increase the link between strategy and organizational performance.

In the higher education industry, empirical research showed that the Boards of Governors' roles included the recruitment, compensation and dismissal of executive leaders at the presidential level (Chatterjee, 2009, pp.267-277). The search for new executive leaders was generally conducted by the Boards of Governors and supported by Human Resources (Moulton, 2004, pp.7-14). In the process, the Boards of Governors focused on the capabilities of a potential recruit and the strategic alignment of their capabilities with the institution. Therefore, strategically engineered interview questions needed to be designed by Human Resources to help the Board of Governors (Conger and Fishel, 2007, pp.442-454; Farley, 2005, pp.55-60). For example, when thinking of each applicant, the Boards of Governors needed to be confident that they would answer positively to questions like: Is this applicant capable of putting the institution's objectives ahead from his/her own when taking decisions? Would this applicant complement the Top Management Team? Can this applicant lead from the institution's core vision, mission, objectives and value statement? Would this applicant fit with the pre-existing or future culture? (Conger and Fishel, 2007, pp.442-454; Farley, 2005, pp.55-60). Answers to these questions would provide insights into the candidate's potential for strategic fit or misfit and possible ways they may succeed or derail (Conger and Fishel, 2007, pp.442-454; Farley, 2005, pp.55-60).

At a theoretical level, some authors argued for different perspectives on the profiles of competencies (i.e., traits, skills and competencies) that Boards of Governors and Human Resources needed to look for when recruiting executive leaders. To identify these competencies, some foundation dimensions needed to be extracted by Human Resources from the data collected about previous executive leaders, values, strategy and learning experiences in the institution (Brisco, 1996, p.2). This meant that recruitment of executive leaders implied a focus on finding applicants with specific strategically aligned competency profiles. Human Resources practitioners were experts in the use of psychometric tests to measure the strategic potential of candidates and some

psychometric tests had been shown to be positively related to executive leaders' success (Heggstad, Morrison, Reeve and McCloy, 2006, pp.9-24; Peterson, Smith, Martorana and Owens, 2003, pp.795-808; Meade, 1994, pp.531-552; Cattell and Brennan, 1994, pp.261-274; Johnson, Wood and Blinkhorn, 1989, pp.153-162).

Firstly, executive intelligence was expected to be a critical transferable competency to look for when recruiting executive leaders (Menkes, 2006, pp.51-56). Executive intelligence was described as the internal compass that ultimately determined how skilful an individual was in terms of strategic planning, strategy execution and strategy evaluation. Specifically, Albers-Mohrman and Worley (2009, p.432) expected executive intelligence to be related to executive leaders' performance across industries, because intelligent executive leaders quickly fostered behaviours to bring costs into alignment, quickly adjusted to customers' requirements, quickly engaged the organization into capturing new opportunities, and quickly leveraged knowledge and resources to achieve more with less. These executive leaders were expected to make quick assessments of the external and internal challenges facing the organization (i.e., external and internal strategic analysis), the possible and preferred scenarios for the future, and the approaches the organization could use to deal with the changing business environment (Lawler and Worley, 2010, pp.1-5). In a related vein, emotional intelligence was described as the transferable ability to identify, assess and control the emotions and motivations of one self and of the followers (Cherniss, 2010, pp.183-191; Barge and Fairhurst, 2008, pp.227-251; Bar-On, 2006, pp.13-25; Baruto and Burbach, 2006, pp.51-54; Gardner and Stough, 2002, pp.68-78; Cherniss, 2001, pp.56-78; Barling, Slater and Kelloway, 2000, pp.145-150; Goleman, 1998, pp.4-9). Cherniss and Kaplan (2001, p.74) showed with a case study that emotional intelligence was a good predictor of executive leaders' success, since emotional intelligent leaders could quickly identify, assess and control the emotions and motivations of their followers for them to be aligned with the strategy of the organization (Dulewicz, Young and Dulewicz, 2005, pp.71-86).

Secondly, different strategic thinking profiles were expected to fit the organization depending on the outcomes the organization was looking for (Beer, 2001, pp.233-247). Executive leaders holding an economic value driven change perspective (i.e., Theory E) focused on strategic results through top-down changes, incentives, organization design and consulting firms bringing solutions (Beer, 2001, pp.233-247). This was expected to lead to improvements in short-term financial performance (i.e., shareholders' value), but

economic value driven change strategy did not lead to sustained economic value, because it typically broke the psychological contract with employees and led to the loss of valuable knowledge and skills (Beer, 2001, pp.233-247). Conversely, executive leaders holding an organization's value driven change perspective (i.e., Theory O) relied on bottom-up development efforts in the hope that changes in organizational effectiveness and efficiency would lead to sustainable long-term higher performance (Beer, 2001, pp.233-247). This was expected to lead to improvements in long-term performance (i.e., stakeholders' value), but no short-term improvements in financial performance (i.e., as it was long to implement) (Beer, 2001, pp.233-247). As such, a strategic focus (i.e., sustained economic value driven change strategy vs. sustained organizational value driven change strategy) that fitted the context and culture of an organisation (i.e., shareholders' value vs. stakeholders' value) was seen as a critical aspect to look for when recruiting strategically aligned executive leaders.

2.4.2 Executive Leaders Development (i.e., Functioning)

This section focuses on the idea that Human Resources are expected to be expert in the development of executive leaders to fit the job and the organization (i.e., strategic alignment) and increase organizational performance. As a consequence, their impact is expected to be major to increase the link between executive leadership and organizational performance.

Firstly, development programs for executive leaders referred to the process by which executive leaders acquired the necessary Knowledge, Skills and Abilities (i.e., KSAs) to perform their job on the longer run (Pace, 2010, pp.19-29; Mathis, Jackson and Zinni, 2008, pp.11-56). Executive leadership development programs have been researched extensively (Pace, 2010, pp.19-29; Dragoni, Tesluk, Russell and Oh, 2009, pp.731-743; Carter, Ulrich and Goldsmith, 2005, p.56; Conger and Benjamin, 1999, p.89). There was little consensus on the way to proceed to make executive leadership development programs effective, except that executive leadership development programs needed to be very specific and adjusted to the actual needs of the executive leader (Blacker and Kennedy, 2004, pp.181-204). For example, general leadership development programs have been shown to be less effective for executive leaders than skilled based short courses

related to financial or accounting knowledge, strategic planning, labour relations or business acumen (Blacker and Kennedy, 2004, pp.181-204).

Secondly, according to Hooijberg and Lane (2009, p.484), executive leadership development programs were effective development tools, but the extent to which improvements could occur depended on the prior skills of the executive leader. To overcome potential limitations, it was suggested that providing executive coaching in addition to executive leadership development programs increased the potential for improvements (Archer, 2009, pp.83-93; DeDea Roglio and Light, 2009, p.303-315; Dunn, 2009, pp.25-29; Hooijberg and Lane, 2009, pp.483-493). For example, external coaches (e.g., retired or previous Presidents) assisted the coachees by helping them assimilate the key elements of the executive training programs independently of their prior skills (Archer, 2009, pp.83-93; DeDea Roglio and Light, 2009, p.303-315; Dunn, 2009, pp.25-29; Hooijberg and Lane, 2009, pp.483-493).

Thirdly, strategically engineered job design could be an essential part of the development process for executive leaders. A clear and calibrated job specification and performance management system needed to be created by Human Resources with the support of key stakeholders to determine what was required on the job and the dimensions that were helpful for an executive leader to develop within a specific organization (Conger and Fishel, 2007, pp.442-454). This multi-stakeholders' involvement ensured that executive leaders had a clear sense of the strategic demands of the job from the perspectives of the widest range of stakeholders (Conger and Fishel, 2007, pp.442-454). For example, in the higher education industry, which could be considered a social enterprise industry, training related to a social enterprise perspective had been shown to increase organizational performance when executive leaders did not have an educational background previous to being hired (Boyatzis, Jack, Cesaro, Passarelli and Khawaja, 2010, pp.2-6; Boyatzis and McKee, 2005, p.64).

2.4.3 Strategic Human Capital

This section focuses on the idea that Human Resources practitioners are expected to be strategic as opposed to transactional within the organization. Indeed, they are expected to produce strategically engineered processes for recruitment, development, management by objectives programs and negotiation of collective agreements (Conger and Fishel, 2007, pp.442-454; Wright, Gardner, Moynihan and Allen, 2005, pp.409-446). In such a strategic alignment context, Human Resources are expected to set formal performance management systems in line with the principles of the Strategic Human Capital Theory (Gratton and Ghoshal, 2003, pp.1-10; Garavan, Morley, Gunnigle and Collins, 2001, pp.48-68; Lepak and Snell, 1999, pp.31-48; Becker and Gerhart, 1996, pp.779-801; Delery and Doty, 1996, pp.802-835; Arthur, 1994, pp.670-687; Wright and McMahan, 1992, pp.295-320).

Firstly, the Strategic Human Capital Theory assumed that human capital was the most important force in the organization (Brockbank, Ulrich and Johnson, 2005, pp.46-55; Dyer and Shafer, 2003, pp.34-67; Coleman, 1988, pp.95-120) and that this principle should be clearly followed in the elaboration of Human Resources' policies (Brockbank, Ulrich and Johnson, 2005, pp.46-55; Ulrich and Lake, 1990, p.87; Delaney, Lewin and Ichniowski, 1989, p.6; Delaney, Lewin and Ichniowski, 1988, p.34). Following the principle that human capital was the most important force in the organization was shown to be positively related to Human Resources' effectiveness and efficiency (Christiansen and Higgs, 2008, pp.13-33; Huselid, Jackson and Schuler, 1997, pp.949-969; Yeung and Ulrich, 1990, pp.311-326) and to improve organizational performance (Christiansen and Higgs, 2008, pp.13-33; Maurping, 2002, p.1; Dess and Picken, 1999, p.5; Delaney and Huselid, 1996, pp.949-969; Youndt, Snell, Dean and Lepak, 1996, pp.836-866).

Secondly, the Strategic Human Capital Theory assumed the formal strategic alignment of recruitment and development practises, performance management systems and collective agreements within the organization (Brockbank, Ulrich and Johnson, 2005, pp.46-55; Ericksen and Dyer, 2005; Kaplan and Norton, 2004, p.15; Dyer and Shafer, 2003, pp.34-67). Performance management systems and collective agreements were described as one of the responsibilities of the Human Resources department and as the way to control and track progress towards the organization's desired outcomes (Christiansen and Higgs,

2008, pp.13-33; Maurping, 2002, p.1; Dess and Picken, 1999, p.5; Delaney and Huselid, 1996, pp.949-969; Youndt, Snell, Dean and Lepak, 1996, pp.836-866). These control systems were expected to facilitate the recruitment and development of executive leaders with the right capabilities and functionalities and to modify new executive leaders, faculty and staff's behaviours towards the desired outcomes (Christiansen and Higgs, 2008, pp.13-33; Scott, Shaw and Duffy, 2008, pp.967-980; Peters and Waterman, 1982, p.11). These control systems were also based on the notion that incentive/disincentive systems would lead to executive leaders, faculty and staff behaving in a way that was aligned with the strategy of the organization (Scott, Shaw and Duffy, 2008, pp.967-980; Conger and Fishel, 2007, pp.442-454).

According to Becton and Schraeder (2009, p.12), only a few organizations were successful in transitioning from transactional Human Resource management to strategic Human Resource management. Human Resources generally suffered from a lack of vision when it came to the strategic direction of their organization (Becton and Schraeder, 2009, pp.11-18; Chasserio and Legault, 2009, pp.1113-1131; Lepak and Shaw, 2008, pp.1486-1499; Martin-Alcazar, Romero-Fernandez and Sanchez-Gardey, 2005, pp.213-241). Human Resource management tended to focus on transactional aspects, day-to-day operations and often took place separately from the overall strategic planning process (Becton and Schraeder, 2009, pp.11-18; Chasserio and Legault, 2009, pp.1113-1131; Lepak and Shaw, 2008, pp.1486-1499; Martin-Alcazar, Romero-Fernandez and Sanchez-Gardey, 2005, pp.213-241). The basic skills set (i.e., or competencies) that Human Resources practitioners possessed was transactional (i.e., being orderly, keeping accurate employment records, completing documentation, and protecting organizations from litigation) rather than strategic (i.e., being problem solvers, conflict managers, coaches and liaisons) (Becton and Schraeder, 2009, pp.11-18; Chasserio and Legault, 2009, pp.1113-1131; Lepak and Shaw, 2008, pp.1486-1499). Human Resources practitioners needed to develop additional skills such as critical thinking, strategic planning, project management, organizational analysis, consulting and change management skills, in order to become strategic as opposed to transactional (Becton and Schraeder, 2009, pp.11-18; Chasserio and Legault, 2009, pp.1113-1131; Lepak and Shaw, 2008, pp.1486-1499).

2.4.4 Summary

This section introduced the notion of strategic alignment of executive leaders, faculty and staff with the use of strategically aligned recruitment, development, performances management practises and with the negotiation of collective agreements. Also, extreme positions in terms of the impact of Human Resources on the success of the organization existed. The first position stated that Human Resources had a major impact on organizational performance, as it focused on Strategic Human Capital (Gratton and Ghoshal, 2003, pp.1-10; Garavan, Morley, Gunnigle and Collins, 2001, pp.48-68; Lepak and Snell, 1999, pp.31-48; Becker and Gerhart, 1996, pp.779-801; Delery and Doty, 1996, pp.802-835; Arthur, 1994, pp.670-687; Wright and McMahan, 1992, pp.295-320). The second position stated that Human Resources had only a moderate impact on organizational performance, as it was mainly a transactional department (Becton and Schraeder, 2009, pp.11-18; Chasserio and Legault, 2009, pp.1113-1131; Lepak and Shaw, 2008, pp.1486-1499; Martin-Alcazar, Romero-Fernandez and Sanchez-Gardey, 2005, pp.213-241).

It was believed that there was a greater than normal potential for resistance to change in the higher education industry, because of the tendency to promote distributed leadership (i.e., decisions taken collegially with the inclusion of most stakeholders). As a consequence, Human Resources practitioners were expected to be pivotal to their institution in establishing an effective response to change, since they were expected to be knowledgeable in areas related to managing people, establishing credibility and facilitating effective working relationships through change implementation (Arnone, 2010, pp.27-28; Conlon and Smith, 2010, pp.53-55; Goleman, 2009, pp.78-90; Ohlott, 2004, pp.151-182; McCauley, Eastman and Ohlott, 1995, pp.93-115). However, if Human Resources were expected to be strategic, it was also observed that they generally had more of a transactional role within organizations (Stopper, 2010, pp.11-13; Becton and Schraeder, 2009, pp.11-18; Mathis, Jackson and Zinni, 2008, pp.11-56; Conger and Fishel, 2007, pp.442-454). Therefore, it was believed that while it could be recognised that Human Resources had a strategic role to play within the higher education industry, they may not have been given the means to reach this outcome.

As a consequence, it was believed that a theoretical framework that described and explained whether and how there was a functional interrelationship between the strategic

stance of higher education institutions, executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Human Resources, would be valuable (Meek *et. al.*, 2010, p.18). In this context, the Human Resources department would play a mediating role in the formal strategic alignment of the organizational culture (e.g., work ethic, management style and organizational values) within a broad model of Management Control Systems (Berry *et. al.*, 2009, pp.2-20).

2.5 Literature Review Synthesis and Preliminary Contingency Theoretical Framework

The previous sections provided the theoretical foundations of the research. This research was related to the themes of changes in the external and internal strategic environment of the higher education industry (i.e., external and internal strategic analysis), strategy, and executive leadership, organizational performance (i.e., strategic alignment) through Management Control Systems and Human Resources.

Each chapter in the literature review came with a series of overlaps and gaps that resulted in the elaboration of a preliminary contingency theoretical framework which served as a basis for the empirical research. Each part of the literature review also resulted in key research problems, questions, aims, objectives and guiding propositions (i.e., hypotheses within an exploratory context).

Please note that in doing so, this research used a relativist approach to Grounded Theory (Roberts, Wallace and Pfab, 2008, IBR 1, pp.3/38-39; Schreiber and Stern, 2001, pp.78-87; Strauss and Corbin, 1998, p.18). Indeed, the researcher engaged with the literature review in three different ways (Schreiber and Stern, 2001, pp.78-87). Firstly, the literature review was used as a context within which to formulate the research and to guide the initial stages of the empirical research. Secondly, the literature review was used to provide signposts (i.e., such signposts indicated to the researcher new or alternative directions to explore). Thirdly, the literature review acted as a mentor to whom the researcher could refer throughout the research. Therefore, references to the literature review were found throughout the research to assist with the establishment of the preliminary and enhanced contingency theoretical frameworks.

The purpose of this section is to explore the overlaps and gaps in the literature review, the resulting preliminary contingency theoretical framework and the resulting research questions, aims, objectives and guiding propositions.

2.5.1 Existing Overlaps and Gaps

This research was related to the themes of changes in the external and internal strategic environment of the higher education industry (i.e., external and internal strategic analysis), strategy, executive leadership, organizational performance (i.e., strategic alignment), Management Control Systems and Human Resources. Three major gaps were extracted from the overlaps in the literature review.

Firstly, the literature review showed that three empirical debates were to be resolved in the context of the higher education in Western Canada. The first empirical debate was linked to the whether and how the higher education industry had changed on dimensions related to governmental rules, competitive markets and organizational culture, in a way that could be described and explained as related to “collegial managerialism”. The second empirical debate was linked to the whether and how there was an interrelationship between strategy, executive leadership and organizational performance (i.e., strategic alignment) in a way that could be described and explained as mediated by Management Control Systems with a focus on strategic management by executive leaders and executive leaders’ success. The third empirical debate was linked to the whether and how there was an interrelationship between strategy, executive leadership and organizational performance (i.e., strategic alignment) in a way that could be described and explained as mediated by Human Resources.

Secondly, scholars mostly focused on descriptive studies answering the questions of the “whom, when and where” of strategy, executive leadership and organizational performance. Parry (2001, p.111) asserted that addressing the theoretical question of “how” would lead to a more systematic theorised examination of the research problem with the development of a theoretical framework. Indeed, despite recent efforts to increase the amount of research related to the “how” (McNally, 2009, p.12; Kan, 2002, p.48; Ospina and Schall, 2001, p.4; Conger and Kanungo, 1998, p.23; Irurita, 1996, pp.89-95; Miles and Hebertson, 1994, pp.45), broad theoretical frameworks on the

“whether and how” of changes in the external and internal strategic environment, strategy, executive leadership, organizational performance, Management Control Systems and Human Resources remained scarce (Broadbent, Laughlin and Alwani-Starr, 2010, pp.461–473; Berry *et. al.*, 2009).

Thirdly, theory and practice were often regarded as separate and incompatible perspectives. According to Bush (2007, p.392), the themes of strategy, executive leadership and organizational performance were often regarded as related to practical activities and practitioners tended to be dismissive of theories. As a consequence, research in this field was overly descriptive and tended to inhibit the development of a theoretical framework (McNally, 2009, p.42; Osborne, Stubbart and Ramaprasad, 2001, pp.435-454; Reger and Palmer, 1991, pp.22-39; Daft, Sormunen and Parks, 1988, pp.123-139). As such, there was a theory–practice divide. Yet, policy makers, executive leaders and Human Resources practitioners, often operated on the basis of unconscious biased heuristics or theories about whether and how to respond to particular situations or events (Fiol and O’Connor, 2003, pp.54-70; Bogner and Barr, 2000, pp.212-226; Fiske and Taylor, 1991, p.45; Daft, Sormunen and Parks, 1988, pp.123-139). As such, decisions would be better informed if practitioners understanding of their own background theories was more coherent (Broadbent, Laughlin and Alwani-Starr, 2010, pp.461–473). Indeed, the gaps between action and reflection in policy makers, executive leaders and Human Resources practitioners had been shown to be related to failures in formal decisional processes (i.e., bounded rationality) (Kadous, Kennedy and Peecher, 2003, pp.759-778; Cloyd and Spilker, 1999, pp.299-322; Cuccia, Hackenbrack and Nelson, 1995, pp.227-248) and motivated reasoning or opportunistic behaviours (Broadbent, Laughlin and Alwani-Starr, 2010, pp.461–473; Berry *et. al.*, 2009; Broadbent, 2007, pp.193-198) with a negative impact on organizational performance (Moore *et. al.*, 2006, pp.10-29; Nelson and Tayler, 2006, pp.145-156; Bazerman and Watkins, 2004, p.1; Kadous, Kennedy and Peecher, 2003, pp.759-778; Beeler and Hunton, 2002, pp.3-17).

2.5.2 Significance and Expected Contributions to the Knowledge Base

A better understanding of changes in the external and internal strategic environment of the higher education industry (i.e., external and internal strategic analysis), strategy, executive leadership, organizational performance (i.e., strategic alignment) through Management Control Systems and Human Resources, within a broad theoretical framework would be significant, since these interrelationships had been under-researched at an empirical, theoretical and practical level (Meek *et. al.*, 2010, p.10; Berry *et. al.*, 2009, pp.2-20) and since a talent shortage for executive leadership was to be expected in the next decades (Skinner, 2010, pp.9-15).

Firstly, in terms of empirical and theoretical outcomes, the current research on the interrelationships between strategy, executive leadership, organizational performance (i.e., strategic alignment) in higher education institutions was inadequate (Meek *et. al.*, 2010, p.10). Indeed, a resolution of the empirical debates and a full understanding of “whether and how” strategy, executive leadership, organizational performance were interrelated in an applied context like the higher education industry in Western Canada would be beneficial. Research lacked empirical and theoretical relevancy if it could not be applied to an actual specific context (Berry *et. al.*, 2009, pp.2-20; McNally, 2009, p.41). Also, the literature did not focus on whether and how Management Control Systems and Human Resources played a mediating role in the alignment of strategy, executive leadership and organizational performance (Berry *et. al.*, 2009, pp.2-20).

Secondly, in terms of practical outcomes, the gaps between current executive leadership and future executive leadership demands in the higher education industry could be considered a liability (Howard and Wellins, 2008, p.12; Michaels, Handfield-Jones and Axelrod, 2001, p.25). The sooner higher education institutions would understand the specific difficulties facing their executive leaders within the changing industry, the sooner they would move to adapt by re-thinking recruitment, development, performance management systems and labour relations priorities. In this context, Human Resources needed to align their practises with the strategy of the institution to become a strategic Human Resources department (Lepak and Shaw, 2008, pp.1486-1499; Gratton and Ghoshal, 2003, pp.1-10; Lepak and Snell, 2002, pp.517-543, pp.31-48; Garavan, Morley, Gunnigle and Collins, 2001, pp.46-68; Delery and Doty, 1996, pp.802-835; Wright and McMahan, 1992, pp.295-320).

2.5.3 Preliminary Contingency Theoretical Framework

Based on the literature review, a preliminary contingency theoretical framework was developed to explain graphically and in a narrative way, the themes to be applied in the research and the interrelationships existing between these themes (Roberts, Wallace and Pfab, 2008, IBR 1, pp.3/38-39; Schreiber and Stern, 2001, pp.78-87; Strauss and Corbin, 1998, p.18; Miles and Huberman, 1994, p.68). The preliminary contingency theoretical framework that was developed from the literature was expected to be applied with the empirical research until the point of closure (Roberts, Wallace and Pfab, 2008, IBR 1, pp.3/38-39). Developing a preliminary contingency theoretical framework helped focus the empirical research and limit the potential for information overload (Schreiber and Stern, 2001, pp.78-87; Strauss and Corbin, 1998, p.18). Indeed, the researcher engaged with the literature review to give a structure within which to situate the research and to guide each stage of the empirical research (Schreiber and Stern, 2001, pp.78-87; Strauss and Corbin, 1998, p.18).

2.5.3.1 Proposition 1: Higher Education Industry

The literature review showed the importance of the theme of changes in the external and internal strategic environment of the higher education industry (i.e., external and internal strategic analysis) on dimensions related to governmental rules, competitive markets and organizational culture. Strategic alignment of higher education institutions was believed to follow the contingencies of the institution with phases of evolution shaping their organizational states (Malni and Brown, 2008, pp.287-300; Portnoff, 2007, p.15; Cameron and Quinn, 2006, p.23; Bakar and Berry, 1993, pp.55-63; Lebas and Weigenstein, 1986, pp.259-272; Ouchi 1980, pp.129-141). Depending on the contingencies of the environment, the higher education institution was believed to rely more or less on rule-based, market-based or culture-based control systems to seek for compliance (Malni and Brown, 2008, pp.287-300; Portnoff, 2007, p.15; Cameron and Quinn, 2006, p.23; Bakar and Berry, 1993, pp.55-63; Lebas and Weigenstein, 1986, pp.259-272; Ouchi 1980, pp.129-141).

Therefore, a first central focus of the preliminary contingency theoretical framework was to describe and explain changes in the external and internal strategic environment of the

higher education industry on dimensions of governmental rules, competitive markets and organizational culture (Berry *et. al.*, 2009, pp.2-20).

2.5.3.2 Proposition 2: Management Control Systems

The literature review showed the importance of the theme of Management Control Systems in the process of aligning strategy, executive leadership and organizational performance to changes in the external and internal strategic environment of the higher education industry. Management Control Systems were believed to be integrated systems with organizational performance closely linked to strategic management within three stages (Berry *et. al.*, 2009, pp.2-20; Malni and Brown, 2008, pp.287-300; Radnor and Barnes, 2007, pp.384-396, Cameron and Quinn, 2006, p.23; Delery and Shaw, 2001, pp.67-78): (i) the measurement stage which involved measuring either quantitatively or qualitatively the inputs, processes and outputs of the institution (Askim, 2009, p.25); (ii) the reporting stage which included communicating performance to decision-makers (e.g., the government); and (iii) the evaluation stage which consisted in using the information and acting upon it for improvement of processes and re-evaluation of strategic stances (Hatry, 2006, p.11). The increased need for accountability in the higher education industry was believed to be related to the increased use of Management Control Systems with a battery of accounting and performance indicators developed to monitor organizational performance in a qualitative and quantitative manner (Berry *et. al.*, 2009, pp.2-20; Malni and Brown, 2008, pp.287-300; Anthony and Govindarajan, 2007, p.5; Radnor and Barnes, 2007, pp.384-396; Cameron and Quinn, 2006, p.23; Delery and Shaw, 2001, pp.67-78). The increased need for accountability in the higher education industry was also believed to be related to the increased use of strategic management principles by executive leaders with three stages: (i) the planning of the strategy (i.e., strategic thinking); (ii) the implementation of the strategy (i.e., strategy execution and strategic alignment); and (iii) the evaluation of the cross-functional decisions that enabled an organization to assess whether or not it was achieving its objectives (i.e., strategy evaluation and organizational performance) (Mintzberg *et. al.*, 2003, pp.14-22).

Therefore, a second central focus of the preliminary contingency theoretical framework was to describe and explain whether and how strategy, executive leadership and organizational performance were aligned using Management Control Systems in the higher education industry (Berry *et. al.*, 2009, pp.2-20).

2.5.3.3 *Proposition 3: Human Resources*

The literature review showed the importance of the theme of Strategic Human Capital and Human Resources in the process of aligning strategy, executive leadership and organizational performance to changes in the external and internal strategic environment of the higher education industry. Firstly, it was believed that there was a need for executive leaders' recruitment to involve the notion of person-organization fit (e.g., strategic thinking). In this context, selection was offered as a form of input control that was particularly well suited to situations involving incomplete knowledge of cause/effect relationships or ambiguous standards of desirable performances for the organization (Wright, Gardner, Moynihan and Allen, 2005, pp.409-446; Snell and Dean, 1992, pp.467-504; Ouchi, 1980, pp.129-141). Secondly, it was believed that there was a need for executive leaders' development to involve the notion of person-job fit (i.e., capability to lead staff and inspire commitment in a strategic manner). Once executive leaders were hired, socialization could begin as a form of output control that was best suited to situations involving complete knowledge of cause/effect relations or non-ambiguous standards of desirable performances for the job (Wright, Gardner, Moynihan and Allen, 2005, pp.409-446; Snell and Dean, 1992, pp.467-504; Ouchi, 1980, pp.129-141). Thirdly, it was believed that there was a need for an aligned performance management system and collective agreement negotiation process to channel behaviours and actions of executive leaders, faculty and staff in congruence with the pre-determined goals of an organization, so that the organization may attain its objectives in a strategically aligned way (Spekle, 2001, pp.419-441; Williamson, 1991, pp.75-94). This process required the establishment of norms to evaluate behaviours, measure the quantity and quality of their inputs and outputs and correct deviations (Spekle, 2001, pp.419-441; Williamson, 1991, pp.75-94).

Therefore, a third central focus of the preliminary contingency theoretical framework was to describe and explain whether and how strategy, executive leadership and organizational performance were aligned using Human Resources in the higher education industry (Berry *et. al.*, 2009, pp.2-20).

2.5.3.4 *Summary*

In this context, the government used steering media in terms of regulations and provision of funding to achieve specific societal goals with higher education institutions (Broadbent, Laughlin and Alvani-Starr, 2010, pp.461-473) within a principal-agent relationship where the payoff from the principal (i.e., government) depended on the actions taken by the agent (i.e., higher education institutions) (Broadbent, Dietrich and Laughlin, 1996, pp.259-284; Williamson, 1991, pp.75-94). Steering media implied the use of positional power and/or incentives to initiate actions and activities at an institutional level (Broadbent, Laughlin and Alvani-Starr, 2010, p.463; Habermas, 1997, p.367). These incentives to initiate actions and activities had consequences in terms of focus on competitive markets and organizational culture.

Based on these theoretical assumptions about themes and their interrelationships, a preliminary contingency theoretical framework was developed from the literature review to serve as a theoretical stance for the empirical research. The preliminary contingency theoretical framework developed from the literature review (i.e., see Figure 2.1 for details) contained the following propositions:

- Proposition 1: The changes in the external and internal strategic environment of the higher education industry can be described and explained in terms of changes in governmental rules, competitive markets and organizational culture (i.e., external and internal strategic analysis).
- Proposition 2: The strategic stance of higher education institutions, executive leadership and organizational performance can be described and explained as strategically aligned with a mediating role played by Management Control Systems. Strategic alignment can be described and explained as impacting the strategic stance, executive leadership and organizational performance with multiple feedback loops. Strategic management by executive leaders can be described and explained as impacting organizational performance.
- Proposition 3: The strategic stance of higher education institutions, executive leadership and organizational performance can be described and explained as strategically aligned with a mediating role played by Human Resources.

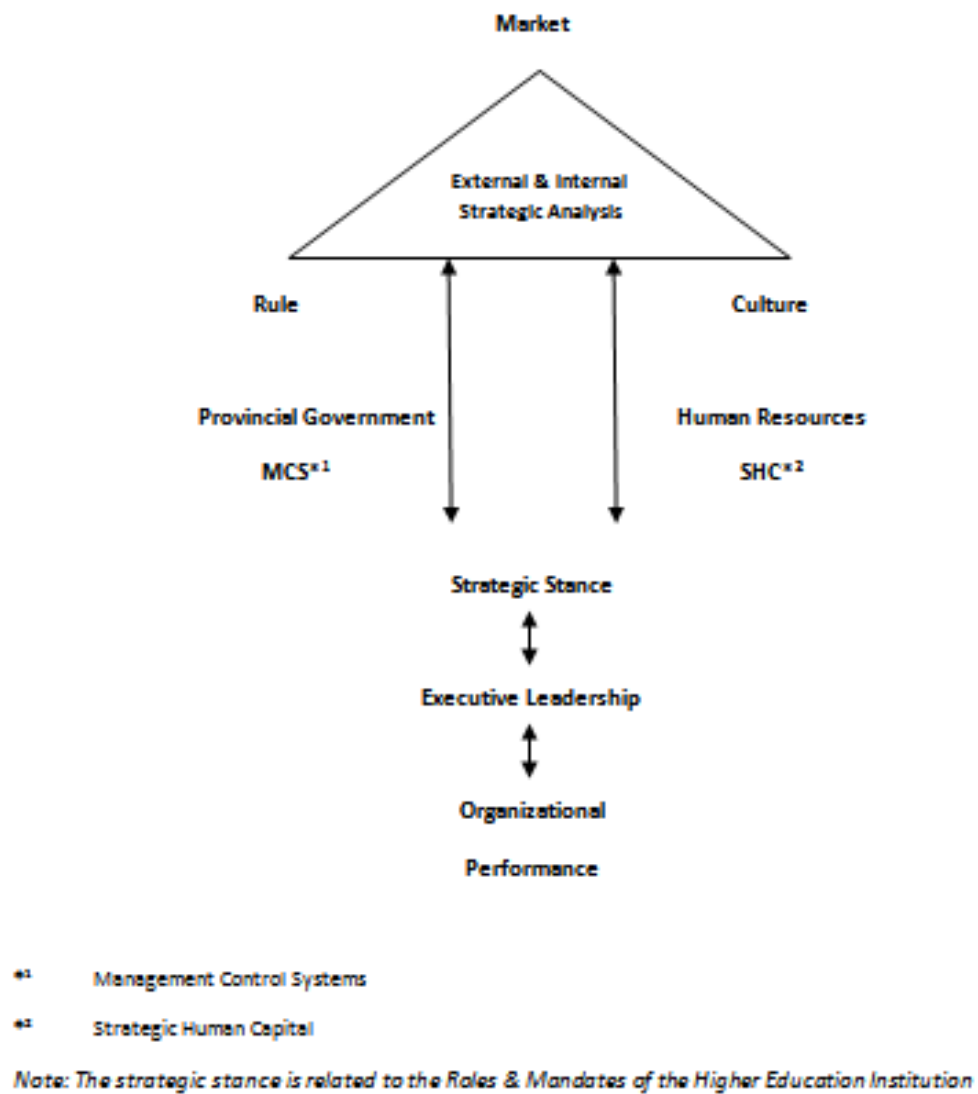


Figure 2.1 Preliminary contingency theoretical framework

2.5.4 Research Questions

It is important to ensure that the research questions are appropriate in terms of their interest, significance and value for the researcher and the practitioner (Broadbent, Laughlin and Alwani-Starr, 2010, pp.461–473; Berry *et. al.*, 2009, pp.2-20; McNally, 2009, p.23; Darke, Shank and Broadbent 1998, pp.273-289). Therefore, the research questions need to state the questions in a way that can be empirically, theoretically and concretely meaningful for practitioners (Broadbent, Laughlin and Alwani-Starr, 2010, pp.461–473; Berry *et. al.*, 2009, pp.2-20; McNally, 2009, p.254; Darke, Shank and Broadbent 1998, pp.273-289).

The research questions are: (i) whether and how changes in the external and internal strategic environment of the higher education industry can be described and explained in terms of changes in governmental rules, competitive markets and organizational culture; (ii) whether and how the strategic stance of higher education institutions, executive leadership and organizational performance are strategically aligned with a mediating role played by Management Control Systems; and (iii) whether and how the strategic stance of higher education institutions, executive leadership and organizational performance are strategically aligned with a mediating role played by Human Resources.

2.5.5 Research Aims and Objectives

The main aim of this research is to investigate the strategic alignment process of the higher education industry in response to changes in the external and internal strategic environment of the higher education industry.

The research aims are: (i) to determine whether and how there is a functional interrelationship between the strategic stance of higher education institutions and changes in the higher education industry in terms of governmental rules, competitive markets and organizational culture; (ii) to determine whether and how there is a functional interrelationship between the strategic stance of higher education institutions, executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Management Control Systems; and (iii) to determine whether and how there is a functional interrelationship between the strategic stance of higher education institutions, executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Human Resources.

Whilst pursuing the aim of carrying out this research aims, the following objectives are achieved in order to propose a contingency theoretical framework. The objectives are to test whether and how there is a functional interrelationship between:

- The strategic stance of higher education institutions and changes in the external and internal strategic environment of the higher education industry in terms of governmental rules, competitive markets and organizational culture.

- The strategic stance of higher education institutions, executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Management Control Systems.
- The strategic stance of higher education institutions, executive leadership, and organizational performance (i.e., strategic alignment) with a mediating role played by Human Resources.

2.5.6 Guiding Propositions

The literature review suggests the following synthesised outcomes as propositions to guide the empirical research. In this exploratory context, the guiding propositions are that there is a functional interrelationship between:

- The strategic stance of higher education institutions and changes in the external and internal strategic environment of the higher education industry in terms of governmental rules, competitive markets and organizational culture.
- The strategic stance of higher education institutions, executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Management Control Systems.
- The strategic stance of higher education institutions, executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Human Resources.

CHAPTER 3 – METHODOLOGY

This chapter introduces the research methodology by which the research questions, aims, objectives and guiding propositions are explored. This chapter starts by presenting the research ontology/ epistemology and the research design. This chapter then describes: (i) the pilot study (i.e., pilot data); (ii) the semi-structured interviews study (i.e., primary data), the informal interviews study (i.e., validation data) and the institutional documents study (i.e., secondary data) using a qualitative Grounded Theory iterative coding process (i.e., open coding, axial coding, selective coding and theoretical coding); and (iii) the triangulation study (i.e., triangulated data) using quantitative descriptive univariate & bivariate statistics as well as non-parametric statistics. The triangulation study within a Grounded Theory context was an additional route into theory generation.

3.1 Research Ontology and Epistemology

When setting out a research project, any researcher holds a set of beliefs with regard to the nature of reality and a perspective on how the research should investigate the world. Easterby-Smith, Thorpe and Lowe (2008, p.31) state that this set of beliefs can be distinguished on three dimensions: (i) ontology (i.e., philosophical assumptions about the nature of reality); (ii) epistemology (i.e., general set of assumptions about the best ways of inquiring into the nature of the world); and (iii) methodology (i.e., combination of techniques used to enquire into a specific situation with different individual techniques for data collection and analysis).

According to Easterby-Smith, Thorpe and Lowe (2008, p.30), there is a tendency to divide research ontology and epistemology into two types: (i) the labels for the first type include quantitative, positivist and objectivist; and (ii) the labels for the second type include qualitative, social constructivist, phenomenological, subjectivist and interpretivist. On the one hand, positivism is the tradition in which the researcher stands apart from the research problem facilitating its solution through the use of established objective measures uninfluenced by the researcher. Easterby-Smith, Thorpe and Lowe (2008, p.28) state that “the researcher must be truly independent of what is being

observed, and the choice of what to study and how to study is determined by criteria rather than by human beliefs and interests”. On the other hand, social constructivism assumes the world and our knowledge of the world are interpreted through social practices and institutions. Easterby-Smith, Thorpe and Lowe (2008, p.28) state that “research results are necessarily filtered by their relevance within a particular social context and research results are not just a matter of measuring, but also understanding the constructs that people place on their experience of the subject under investigation”.

Within the context of this Grounded Theory research, the ontology and epistemology were relativist. Relativism is an intermediate ontology and epistemology that promotes the pragmatic idea that the truth emerges from a consensus between different viewpoints (Easterby-Smith, Thorpe and Lowe, 2008, p.33; Suddaby, 2006, pp.633-642). According to Easterby-Smith, Thorpe and Lowe (2008, p.34), in a relativist context, there is a difficulty to access reality that may be alleviated by the use of multiple perspectives (e.g., triangulation of methods and analyses with different data sources and different units of analysis).

3.2 Research Design

Firstly, the research focused on the analysis of publicly funded higher education institutions in Western Canada. This meant that the research used a case study approach. Eisenhardt (1989, p.534) describes a case study approach as “a research strategy which focuses on understanding the dynamics present within specific settings” and Yin (2003, p.7) states that “case studies are suitable for whether and how questions and are preferred in examining contemporary events, when the relevant behaviours cannot be manipulated”.

Secondly, an exploratory combined methodology design related to the relativist ontology and epistemology was adopted in this research (Easterby-Smith, Thorpe and Lowe, 2008, p.37). A combined methodology design meant that the research was based on both: (i) a qualitative analysis of semi-structured interviews and institutional documents with a Grounded Theory analysis process; and (ii) a quantitative analysis of institutional documents with descriptive univariate & bivariate statistics as well as non-parametric statistics.

Thirdly, the units of analysis in this research were related to: (i) a study sample comprised of informants from publicly funded higher education institutions in Western Canada with a unit of analysis of individual executive leaders describing their institution at a macro-level; and (ii) a study population comprised of institutional documents from all publicly funded higher education institutions in Western Canada with a unit of analysis of institutions describing themselves at a macro-level. The semi-structured interviews study and the institutional documents study were also focusing on two different levels of strategy content (Boyne and Walker, 2004, pp.231-252): (i) the enacted strategy or strategic actions accessed via the semi-structured interviews; and (ii) the stated strategy or strategic stance accessed via the institutional documents.

Having more than one methodology (i.e., data analysis) and more than one type of data (i.e., data collection) improved the generalisability potential of the case study (Easterby-Smith, Thorpe and Lowe, 2008, p.29; Suddaby, 2006, pp.633-642).

3.3 Pilot Study

This section provides the findings of the pilot study for the two types of data selected (i.e., semi-structured interviews or primary data; and institutional documents from publicly funded institutions or secondary data) and the two types of analysis (i.e., qualitative Grounded Theory analysis and quantitative analysis). Feedbacks and amendments as a result of the pilot study are highlighted and discussed, as well as the mechanisms by which the issues were addressed for the main research.

Conducting a pilot study is not necessarily required in an exploratory context (Roberts, Wallace and Pfab, 2008, IBR 2, pp.7/1-32), however, the literature review drew attention to the paucity of research into the investigation of the higher education industry in terms of the interrelationships existing between changes in the external and internal strategic environment, strategy, executive leadership, organizational performance, and the mediating role played by Management Control Systems and Human Resources.

As such, the pilot study was important in shaping the design of the main research to: (i) gain insight into the themes and interrelationships; and (ii) test the appropriateness of the

qualitative and quantitative research methodology with semi-structured interviews and institutional documents.

3.3.1 Interviews

Over a period of a couple of weeks, a few pilot interviews were conducted with colleagues.

Each interview commenced with an outline of the research. Preliminary questions sought information regarding the informant's demographics. Then, the questions focused on broad themes: (i) changes in the external and internal strategic environment; (ii) strategy, executive leadership and organizational performance, with a mediating role of Management Control Systems; and (iii) strategy, executive leadership and organizational performance, with a mediating role of Human Resources.

Firstly, the transcripts of the interviews were examined for themes that might guide future semi-structured interviews. Secondly, the transcripts of these interviews were examined by an expert in Grounded Theory analysis and recommendations were made as to the ways the interviewing and analysis techniques of the researcher could be improved. Thirdly, the interviews were discussed with colleagues in order to finalise the semi-structured interview questions.

3.3.2 Institutional Documents

Over the same period, a few institutions were reviewed and data was collected from the internet.

Firstly, the institutional documents (i.e., annual reports and financial statements) were examined for themes and variables that might guide future analyses. Secondly, qualitative analyses were examined by an expert in Grounded Theory analysis and recommendations were made as to how the researcher's analyses techniques could be improved. Thirdly, qualitative and quantitative analyses were discussed with colleagues in order to finalise the selection of institutional documents and variables.

3.3.3 Outcomes and Adjustments

The pilot study provided theoretical and methodological insights:

- In terms of theoretical insights, the pilot study revealed that there were some interrelationships between changes in the external and internal strategic environment, strategy, executive leadership, organizational performance, Management Control Systems and Human Resources, which could be extracted using interviews and institutional documents.
- In terms of the interviews technique, the pilot study revealed that the researcher sometimes spoke quickly and was difficult to understand. The researcher learnt to speak slowly and in an articulated manner to encourage more in-depth disclosure from the informants. When discussing with colleagues, a limited number of amendments were made to the semi-structured interviews schedule extracted from the pilot study, the most notable of which being the deletion of three questions on how Human Resources practices were set up in the past, present and in the future. One question was inserted in relation to whether or not informants wanted to add something to the interview. Some of the prompts were modified to seem more natural.
- In terms of the Grounded Theory analysis technique, the pilot study revealed that some information needed to be added in the informant's summary forms and document summary forms to constitute the research archive (i.e., see Appendix S).

3.4 Interviews

In this research, primary data was collected and qualitatively analysed using the Grounded Theory iterative process. The primary data was obtained by conducting semi-structured interviews and unstructured interviews designed to promote an in-depth understanding of higher education institutions with executive leaders' description and explanation of changes in the external and internal strategic environment of the higher education industry, strategy, executive leadership, organizational performance, Management Control Systems and Human Resources.

The semi-structured interviews study gave some scope for a longitudinal understanding of the phenomenon under investigation at a macro-level of analysis.

3.4.1 Formal Interviews

For the research, preliminary meetings were scheduled with stakeholders (i.e., see Appendix A). The goal was to discuss the research proposal and identify whether there were availability, security, or confidentiality issues related to accessing information and interviewing informants. Letters of support were collected and showed that potential issues related to availability, security or confidentiality were dealt with appropriately.

According to Tellis (1997, p.4), one of the most important sources of data in qualitative research was related to interviews. The Grounded Theory approach required a form of interviews that was not totally structured and not totally unstructured (Corbin and Strauss, 1990, pp.3-20). Indeed, structured interviews tended to confirm the researcher's own expectations because of the way they were structured (Goulding, 1999, p.12). However, a totally unstructured interview could cause confusion and result in the collection of meaningless data (Lee, 1999, p.36; Corbin and Strauss, 1990, pp.3-20). Therefore, a semi-structured format was considered to be the most appropriate form of interview to be used in this part of the research.

The design of the semi-structured interviews was driven by the goal of collecting information (i.e., data collected for the purpose of applying the preliminary contingency theoretical framework to result in an enhanced contingency theoretical framework). The questions of the semi-structured interviews were designed in advance of the interview during the pilot study. Because the data collected was qualitative and not to be statistically evaluated, no formal interview schedule was required. Instead a brief demographic section and interview schedule section were prepared. The interview schedule listed major open-ended questions with appropriate probes (i.e., see Appendix D). The open-ended questions were in line with the preliminary contingency theoretical framework to maintain equilibrium between a free-flowing and directed conversation (McNally, 2009, p.96; Lee, 1999, p.36; Corbin and Strauss, 1990, pp.3-20). With an interview schedule, the researcher could pursue emergent themes more deeply if needed (McNally, 2009, p.96). Informants were not provided with questions either in advance or during the interview.

In designing the semi-structured questions, several principles were respected: (i) questions addressed only one aspect of a topic (i.e., otherwise the informant would be

confused); (ii) questions covered the domain under study and were listed in a sensible order (i.e., more general first, then increasingly specific); (iii) questions were assessed with colleagues thinking out loud for any confusion to be recorded; and (iv) questions were revised and assessed again with other colleagues (i.e., the outcome of these conversations was examined for themes that might guide future semi-structured interviews). Also, according to Ashworth and Lucas (2000, p.296), the researcher always needed to: (i) make minimal use of questions prepared in advance; (ii) use open-ended questions; (iii) engage in empathetic listening; (iv) consciously silence his/her concerns; and (v) use prompts to pursue/clarify the informant's line of reflection.

The first general unstructured questions allowed informants to describe and explain what changes in the industry, strategy, executive leadership, organizational performance and Human Resources were like and meant for their institution, so that a full array of issues considered important by the informants themselves (i.e., rather than by the researcher) could emerge (Corbin and Strauss, 1990, pp.3-20; McCracken, 1988, p.45). Informants were then invited to answer semi-structured questions (Corbin and Strauss, 1990, pp.3-20). The semi-structured interview schedule was used to address the following themes: (i) changes in the higher education industry; (ii) Management Control Systems; and (iii) Human Resources. Please refer to the appendix section for details on the interview themes/prompts for this research (i.e., see Appendix D).

3.4.2 Informal Interviews

In addition to the formal semi-structured interviews, informal interviews (i.e., second stage interviews) were conducted. These interviews were primarily unstructured. The advantage of these unstructured interviews included their ad hoc nature and their lack of specific themes or specific planned questions (Lee, 1999, p.36). Informal interviews added meaning to the data already collected by exploring what the informants thought of the preliminary findings. Informal interviews were also used when the need to clarify certain points and obtain a deeper understanding of a theme was identified (McNally, 2009, p.46).

3.4.3 *Sample Selection*

3.4.3.1 *Size and Composition of the Sample*

For the formal interviews, data was collected through the semi-structured interviews of 20 executive leaders describing their higher education institution and/or the government in Western Canada. For the informal interviews, data was collected through the unstructured interviews of 9 executive leaders from higher education institutions and/or the government in Western Canada reacting to the preliminary findings.

The composition of the sample for the semi-structured interviews was the following: 11 informants were male as compared to 9 females; the average age was 53.25 years ranging from 43 years old to 70 years old. Informants worked in higher education institutions in Western Canada with 7 informants from British Columbia and 13 from Alberta, 10 informants from a “Comprehensive Community Institutions”, 7 informants from “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions” and consultants to these types of institutions, 3 informants from “Specialized Art and Culture Institutions and Polytechnical Institutions”, and 4 informants from the government or political environment (i.e., 2 Member of Legislative Assembly, 1 past Minister in the government and 1 city councillor). Some informants were executive leaders (n=17) and some informants were Human Resources practitioners (n=3). Some informants had been executives in a Union (n=1), some informants had been sitting on the Board of Governors (n=2). Please note that some informants belonged to several categories at the same time. The composition of the sample for the semi-structured interviews is described in the appendix section (i.e., see Appendix S).

For the purposes of the semi-structured interviews study, informants from publicly funded institutions were classified on the basis of their institutions’ Roles & Mandates as follows:

Table 3.1 *Semi-structured interviews study and sample size*

	Population of Institutions	Frequency of Informants	Sample Size
“Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions”	17	7	41%
“Comprehensive Community Institutions”	22	10	45%
“Specialized Art and Culture Institutions and Polytechnical Institutions”	7	3	42%
Total	46	20	

This meant that the sample size of the semi-structured interviews study was small. However, it was believed that this limitation could be overcome, because: (i) theoretical frameworks issued from Grounded Theory were generally exploratory and the basis for further research; (ii) it had been demonstrated that saturation of themes was generally achieved after 12 semi-structured interviews (Guest, Bunce and Johnson, 2006, pp.59-82; Gaskell, 2000, pp.38-56; Gomm, Hammersley and Foster William, 2000, p.34; Small, 2009, pp.5-38; Chetty, 1996, pp.76-82); (iii) the population of publicly funded institutions in Western Canada was small (i.e., 46 institutions); and (iv) the research included a methodological triangulation with different types of data collected (i.e., semi-structured interviews and institutional documents) and different types of analyses (i.e., qualitative and quantitative) to apply the preliminary contingency theoretical framework several times until closure.

The composition of the sample for the unstructured interviews is described in the appendix section (i.e., see Appendix S).

3.4.3.2 *Sampling Design*

The sampling designs used in this part of the research were convenience sampling (Roberts, Wallace and Pfab, 2008, IBR 3, p.3/7) and theoretical sampling (McNally, 2009, p.97; Corbin and Strauss, 1990, pp.3-20). Indeed, informants were approached as a

result of the researcher's existing business networks and as a result of the Grounded Theory iterative process (i.e., deliberate attempts were made to gain access to specific informants in order to further explore and saturate emergent themes; Corbin and Strauss, 1990, pp.3-20).

To ensure anonymity to the informants, the sample size was expanded by increasing the number of informants and broadening the range of higher education institutions, provinces and executive leadership levels represented in the sample. As the research progressed, deliberate attempts were made to gain access to people outside the primary business network of the researcher in order to broaden the sample (e.g., the researcher was a member of a discussion panel at a conference attended by executive leaders in Western Canada as a way to broaden the network; the researcher also used LinkedIn as a way to broaden the network).

These strategies helped the themes to emerge and become saturated without compromising the confidentiality or the rigor of the study (Corbin and Strauss, 1990, pp.3-20).

3.4.4 *Research Ethics*

Regardless of the form a particular research may take, ethical principles needed to be followed (Orb, Eishauer and Wynaden, 2001, pp.93-96). This part of the research was related to semi-structured and unstructured interviews and as such needed to follow the ethical principles for the conducting of research involving human informants in accordance with Heriot-Watt University statutes.

Typical access concerns were discussed with informants. All informants in this research were advised that their participation was voluntary and that they could withdraw at any time during the research. Each informant was provided an outline of the purpose of the research and their rights within the Human Ethics Committee Guidelines of Heriot-Watt University. Each informant was asked to sign an informed consent form for their participation in the research. Please refer to the appendix section for details (i.e., see Appendix B and Appendix C).

3.4.5 Data Collection

The semi-structured and unstructured interviews were conducted from April 2012 to March 2013.

The process started with the researcher contacting informants by emails to outline the scope and purpose of the study as well as what was required. Interviews dates and times were scheduled and confirmations were forwarded to the informants.

Interviews began with the researcher providing an outline of the purpose, followed by the completion of the research consent form (i.e., see Appendix B and Appendix C). The semi-structured interviews lasted 90 minutes on average. The semi-structured interviews were recorded and hand-written notes were taken to record impressions. The unstructured interviews lasted approximately 30 minutes. On most occasions, it was a phone call. During these unstructured interviews, notes were taken.

A project was established for the research, wherein data files were uploaded including interviews transcripts and analyses, interviews audio-files, memos, informant's summary sheets (i.e., see Appendix S).

3.5 Institutional Documents

In this research, secondary data was collected, qualitatively analysed using the Grounded Theory iterative process and quantitatively analysed using descriptive univariate & bivariate statistics as well as non-parametric statistics. The secondary data were obtained by collecting institutional documents to promote an in-depth understanding of higher education institutions with institutions' description and explanation of changes in the external and internal strategic environment of the higher education industry, strategy, executive leadership, organizational performance, Management Control Systems and Human Resources.

The institutional documents study gave some scope for a cross-sectional understanding of the phenomenon under investigation at a macro-level of analysis.

3.5.1 Documents

Qualitative research widely uses archival data like institutional documents. In fact, documentary sources consist of 64% of the data collection in qualitative research (Dube and Pare, 2003, pp.597-636).

This research used institutional documents from the websites of Western Canadian higher education institutions and the government (i.e., government of Alberta and British Columbia). The institutional documents (i.e., annual or accountability reports) contents used for this part of the research included: (i) mission statements, vision, values; (ii) mandate statements; (iii) financial statements (i.e., consolidated statements of financial position, consolidated statements of operations, changes in net assets and cash flow and auditors reports); (iv) programs offered and research agreements; (v) location; (vi) Boards of Governors and Presidents message; and (vii) Human Resources statements.

These institutional documents were ubiquitous in the higher education industry, since: (i) accreditation agencies and the government demanded them; (ii) strategic planning was predicated on formulation and reporting of these documents (i.e., articulating a shared purpose was a pre-requisite to institutional success in terms of effectiveness and efficiency); and (iii) virtually every publicly funded higher education institution in Western Canada had these documents available for public scrutiny as a way to demonstrate their reputability (Hartley, 2002, pp.419-429).

Moreover, higher education institutions were constantly revising these documents for accountability purposes. The crafting and re-crafting of such documents consumed considerable institutional resources. It was suggested that the process of articulating higher education institution's documentary sources had two potential benefits for any higher education institution. The process could be instructional for the institution, as a clear mission and clear institutional documents helped faculty and staff distinguish between activities that aligned to institutional imperatives and those that did not (Hartley, 2002, pp.419-429; Keller, 1983, pp.414-426; Drucker, 1973, p.23). Secondly, the process could be motivational, as a clear mission and clear institutional documents helped create a sense of shared purpose and helped inspire those within an institution, as well as communicate the organization's characteristics, values and history to external stakeholders (Hartley, 2002, pp.419-429; Keller, 1983, pp.414-426; Drucker, 1973, p.23).

This theoretical proposition assumed that institutional documents were artefacts of a broader institutional discussion about the higher education institution's Roles & Mandates.

Contrary to higher education institutions, documents from the government of Alberta and British Columbia were not systematically available online and as a consequence were not systematically assessed in the institutional documents study.

3.5.2 Population Selection

3.5.2.1 Size and Composition of the Population

The population of all publicly funded institutions in Western Canada (i.e., Alberta and British Columbia) was selected. Indeed, the scope of this research was to focus on publicly funded higher education institutions in Western Canada. This meant that the context of the research was situated in the higher education industry with higher education institutions defined as all publicly funded academies, universities, colleges, and other collegiate-level institutions that awarded academic degrees, diploma and/or professional certifications in Western Canada. Private institutions in Western Canada had been contacted but did not give access to their institutional documents.

In this part of the research, data was collected through the institutional documents of 46 higher education institutions in Western Canada (i.e., 21 publicly funded higher education institutions in Alberta and 25 publicly funded higher education institutions in British Columbia).

These 46 publicly funded higher education institutions were related to 3 categories of Roles & Mandates: (i) "Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions" (n=17); (ii) "Comprehensive Community Institutions" (n=22); and (iii) "Specialized Art and Culture Institutions and Polytechnical Institutions" (n=7). These higher education institutions had unique characteristics resulting from differences in Roles & Mandates. These 46 higher

education institutions were representing a census population for all publicly funded institutions in Western Canada.

3.5.2.2 *Sampling Design*

The sampling design used in this part of the research was convenience sampling (Roberts, Wallace and Pfab, 2008, IBR 3, p.3/7). Indeed, the selected publicly funded higher education institutions were from Western Canada, because this was the preferred field of the researcher. The researcher could understand the context of the data collected for these institutions more easily thanks to a position within a publicly funded institution in Western Canada.

3.5.3 *Data Collection*

The institutional documents were collected from March 2012 to December 2012.

The institutional documents were obtained via the web and printed for analysis. Using the web had two advantages. Firstly, the data were available electronically and as such could be analysed and categorized easily. Secondly, the data were available quickly which helped gather a representative amount of institutional documents for the entire population of publicly funded higher education institutions in Western Canada.

A project was established for the research, wherein data files were uploaded including all annual reports and accountability reports as well as institutional documents summary sheets and analyses (i.e., see Appendix S).

3.6 Data Analysis using the Grounded Theory Analysis

The Grounded Theory analysis uses an iterative analysis approach based on both a bottom-up (i.e., inductive) and top-down (i.e., deductive) process (Easterby-Smith, Thorpe and Lowe, 2008, p.122). Coding is a core process in the Grounded Theory analysis (Easterby-Smith, Thorpe and Lowe, 2008, p.122). It is through coding that the conceptual abstraction of data and its reintegration as a theoretical framework takes place (Easterby-Smith, Thorpe and Lowe, 2008, p.122).

There are two types of coding in the Grounded Theory analysis (Easterby-Smith, Thorpe and Lowe, 2008, p.126): (i) substantive coding, which includes open, axial and selective coding; and (ii) theoretical coding.

Please refer to the appendix section for reference to the raw data for both the semi-structured interviews study and the institutional documents study (i.e., see Appendix S).

3.6.1 Open Coding, Axial Coding and Selective Coding

The first level of coding includes the open, axial and selective coding of the data.

Firstly, open coding initially involved the breaking down, examining, conceptualizing and categorizing of the data (McNally, 2009, pp.108-120; Strauss and Corbin, 1998, p.28; Corbin and Strauss, 1990, pp.3-20). Open coding involved the process of entering the transcribed semi-structured interviews or institutional documents and making notes with initial themes. During this phase of the research, the data was carefully examined and individual incidents that contained a single unit of meaning were highlighted (McNally, 2009, pp.108-120; Strauss and Corbin, 1998, p.28; Corbin and Strauss, 1990, pp.3-20). The identified incidents could be coded into more than one theme if appropriate (McNally, 2009, pp.108-120; Strauss and Corbin, 1998, p.28; Corbin and Strauss, 1990, pp.3-20). When necessary, semi-structured interviews and institutional documents were re-listened to, re-read and re-coded to ensure the themes were correctly assigned. An open coding grid was created. Please refer to the appendix section for an example of open coding grid for the semi-structured interviews study (i.e., see Appendix F). Please

refer to the appendix section for an example of open coding grid for the institutional documents study (i.e., see Appendix L).

Secondly, selective coding involved examining and collapsing themes resulting from the open coding into higher level themes (McNally, 2009, pp.108-120; Strauss and Corbin, 1998, p.28; Corbin and Strauss, 1990, pp.3-20). Selective coding involved the delimitation of themes that supported a core theme and how they were related to each other (i.e., this is also known as “axial coding” with the dimensionalisation of themes on the “6 Cs” dimensions of causes, context, contingencies, consequences, co-variances and correlations). Dimensionalisation occurred in the selective coding process when the researcher could see prospects for a theory that coped with the core themes (McNally, 2009, pp.108-120; Strauss and Corbin, 1998, p.28; Corbin and Strauss, 1990, pp.3-20). The other themes were not lost, rather they were considered subordinate to the core themes. The researcher selected themes that related to the core themes in order to develop the Grounded Theory. A log book of core and subordinate themes was created. Please refer to the appendix section for an example of log book of selective coding for the semi-structured interviews study (i.e., see Appendix I). Please refer to the appendix section for an example of log book of selective coding for the institutional documents study (i.e., see Appendix O).

3.6.2 Theoretical Coding

The second level of coding or theoretical coding involves the conceptualization of interrelationships between the core themes thus generating a theoretical framework (Glaser and Strauss, 1967, p.25).

Theoretical propositions emerged from the conceptualization of core and subordinate themes and their interrelationships (McNally, 2009, pp.108-120; Strauss and Corbin, 1998, p.28; Corbin and Strauss, 1990, pp.3-20; Glaser and Strauss, 1967, p.25). As the core and subordinate themes became saturated, the researcher examined their interrelationships and the characteristics of themes that allowed them to relate to each other. The investigation of the interrelationships among themes was known as theoretical coding but was also happening at the selective coding level for Strauss and Corbin (1998, p.28) and Corbin and Strauss (1990, p.3-20). The discussion of the interrelationships

between the identified themes formed the basis for the theoretical framework being developed (McNally, 2009, pp.108-120; Strauss and Corbin, 1998, p.28; Corbin and Strauss, 1990, pp.3-20; Glaser and Strauss, 1967, p.26). As such, the theoretical framework was grounded in the themes extracted from the data.

3.6.3 Theoretical Saturation

Glaser and Strauss (1967, p.23) stressed that care should be taken not to create too many or too few themes. Too many themes clogged the system and too few themes forced the emergence of higher level themes, both leading to methodological flaws (Glaser and Strauss, 1967, p.23).

As a consequence, coding was expected to continue until saturation occurred (i.e., no new data or new conceptual information was available to indicate new themes or the expansion of existing themes). Saturation represented a sense of closure, whereby all data fitted into existing themes (McNally, 2009, pp.108-120; Suddaby, 2006, pp.633-642; Charmaz, 2000, pp.509-535; Strauss and Corbin, 1998, p.18; Corbin and Strauss, 1990, pp.3-20; Glaser and Strauss, 1967, p.23). Saturation was reached when any additional data did not contribute to the generation or clarification of a theme (e.g., informants selected via a theoretical sampling process were saying similar things about the same themes).

By the time the researcher had completed the analysis of the semi-structured interviews and institutional documents, all obvious themes had become saturated. Therefore, the themes were closed as no new core themes with new subordinate themes appeared (McNally, 2009, pp.108-120; Suddaby, 2006, pp.633-642; Charmaz, 2000, pp.509-535; Strauss and Corbin, 1998, p.18; Corbin and Strauss, 1990, pp.3-20; Glaser and Strauss, 1967, p.57). Please refer to the appendix section for an example of the saturation process for the theme of “Changes of Rules” within the semi-structured interviews study (i.e., see Appendix H). Please refer to the appendix section for an example of the saturation process for the theme of “Stewardship” within the institutional documents study (i.e., see Appendix N).

3.6.4 Theoretical Memos and Diagrams

As themes and interrelationships were developed during the coding process, the ideas generated were written into memos and represented into diagrams, which led to even more abstraction and theorizing. These memos and diagrams were fundamental to the generation of the theoretical framework (McNally, 2009, pp.108-120; Charmaz, 2000, pp.509-535; Strauss and Corbin, 1998, p.18; Corbin and Strauss, 1990, pp.3-20; Glaser and Strauss, 1967, p.45).

Firstly, theoretical memos were used to aid the development of ideas. The memos gave a detailed description of core themes, subordinate themes and interrelationships (McNally, 2009, pp.108-120; Charmaz, 2000, pp.509-535; Strauss and Corbin, 1998, p.18; Corbin and Strauss, 1990, pp.3-20; Glaser and Strauss, 1967, p.45). There were three features of theoretical memos: (i) they were written with complete freedom, (ii) they were accumulated; and (iii) they were highly “sortable” (McNally, 2009, pp.108-120; Charmaz, 2000, pp.509-535; Strauss and Corbin, 1998, p.18; Corbin and Strauss, 1990, pp.3-20; Glaser and Strauss, 1967, p.45). Glaser (1978, p.48) believed that it was important that memos be written without such constraints as the necessity for good prose as it was more important that the idea be recorded and accumulated in the first place. Also, sorting memos put fractured data back together. During sorting, new ideas emerged, which in turn were recorded in new memos. Sorting memos generated theoretical frameworks that described and explained the core themes and their interrelationships in the investigated area. Please refer to the appendix section for an example of a memo for the semi-structured interviews study and the institutional documents study (i.e., see Appendix G and Appendix M). When writing a memo such as the one in the appendix section, the meaning of words that could impact on the interpretation of the verbal comments were confirmed with the informant via the use of informal interviews (i.e., second stage interviews).

Secondly, diagrams were used to aid the representations of ideas. Diagrams were developed via mind-mapping to assist in the identification of the interrelationships between the core themes. As interrelationships were clarified, the mind-maps were formalized in an attempt to display the interrelationships more effectively. An example of one of these diagrams was presented in the appendix section. The diagram showed the core themes and how they were linked. When a diagram such as this was completed, the

researcher then commenced further searches of the literature in order to provide deeper explanations for the themes and interrelationships. Please refer to the appendix section for an example of mind mapping and memo for the semi-structured interviews study (i.e., see Appendix J and Appendix K). Please refer to the appendix section for an example of mind mapping and memo for the institutional documents study (i.e., see Appendix P and Appendix Q).

Please note that memo writing and diagramming (McNally, 2009, pp.108-120; Charmaz, 2000, pp.509-535; Strauss and Corbin, 1998, p.18; Corbin and Strauss, 1990, pp.3-20; Glaser and Strauss, 1967, p.23) were on-going procedures through all stages of the data analysis.

3.7 Triangulation Study

Within a relativist approach, multiple data and/or types of analyses are used to strengthen the theoretical framework (Easterby-Smith, Thorpe and Lowe, 2008, p.14; Roberts, Wallace and Pfab, 2008, IBR 1, pp.3/33-34). Grounded Theory is a methodology involving the discovery of a theoretical framework through the analysis of data that are mainly qualitative but can also be quantitative (i.e., “All is data” in a Grounded Theory context; Glaser and Strauss, 1967, Chapter VIII).

In this part of the research, data was collected and quantitatively analysed using descriptive univariate & bivariate statistics as well as non-parametric statistics on census data. The triangulation study was conducted to further explore the core themes extracted from the Grounded Theory analysis (i.e., descriptive univariate statistics) and their interrelationships (i.e., descriptive bivariate and non-parametric statistics) (Suddaby, 2006, pp.633-642; Strauss and Corbin, 1998, p.18; Glaser and Strauss, 1967, p.23). The triangulation study within a Grounded Theory context was an additional route into theory generation.

3.7.1 *Institutional Documents*

This research used institutional documents from the websites of Western Canadian higher education institutions and the government (i.e., government of Alberta and British

Columbia). The institutional documents (i.e., annual or accountability reports) contents used for this part of the research included: (i) mission statements, vision, values; (ii) mandate statements; (iii) financial statements (i.e., consolidated statements of financial position, consolidated statements of operations, changes in net assets and cash flow and auditors reports); (iv) programs offered and research agreements; (v) location; (vi) Boards of Governors and Presidents message; and (vii) Human Resources statements.

3.7.2 Population Selection

3.7.2.1 Size and Composition of the Population

The data collected for this quantitative part of the research came from governmental sources and from the websites of 46 publicly funded higher education institutions in Western Canada.

Data was collected through the institutional documents of 46 higher education institutions in Western Canada (i.e., 21 publicly funded higher education institutions in Alberta and 25 publicly funded higher education institutions in British Columbia).

These higher education institutions were related to 3 categories of Roles & Mandates: (i) “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions” (n=17); (ii) “Comprehensive Community Institutions” (n=22); and (iii) “Specialized Art and Culture Institutions and Polytechnical Institutions” (n=7). These higher education institutions had unique characteristics resulting from differences in Roles & Mandates. They represented a census population for all publicly funded institutions in Western Canada.

3.7.2.2 Sampling Design

The sampling design used in this part of the research was convenience sampling (Roberts, Wallace and Pfab, 2008, IBR 3, p.3/7). Indeed, the selected publicly funded higher education institutions were from Western Canada, because this was the preferred field of the researcher.

3.7.3 Variables Selection

The rationale for the selection and the ranking of the variables within a Grounded Theory context was based on the semi-structured interviews study, the institutional documents study and/or the secondary data available (Suddaby, 2006, pp.633-642; Strauss and Corbin, 1998, p.18; Glaser and Strauss, 1967, p.23). The data collected within this approach was used to further explore the core themes and interrelationships identified as a result of the Grounded Theory process in the semi-structured interviews study and the institutional documents study.

Please note that the core theme of changes in the industry was not to be quantitatively assessed in the triangulation study, because of limitations in terms of institutional documents and information available. As a consequence, the core themes explored in the triangulation study were related to strategy, executive leadership, organizational performance, Management Control Systems and the Human Resources.

3.7.3.1 Levels of Measurement

Levels of measurement typically involve 4 different levels for qualitative or quantitative data: (i) nominal; (ii) ordinal; (iii) interval; and (iv) ratio.

Firstly, according to Tacq (1997, pp.5-6), there are 2 different levels of measurement for qualitative data:

- Nominal data is a form of qualitative data with categories that do not have an inherent order and/or should not be applied an evaluative order (i.e., there are no inherent and/or evaluative connotations with categories considered greater, higher and/or better than the others). For example, nominal variables can be gender, sexual orientation, ethnic background or religion as the categories of these variables are not and should not be ranked.
- Ordinal data is another form of qualitative data with categories that have an inherent order and/or can be applied an evaluative order (i.e., there are inherent and/or evaluative connotations with categories considered greater, higher and/or better than the others). With ordinal ranking, all categories receive distinct ordinal numbers with

a specific ranking related to their inherent and/or evaluative connotations. For example, an ordinal variable can be related to the education of the respondents (e.g., 1-“Less than high school”, 2-“High school only”, 3-“Some college”, 4-“College degree” and 5-“Advanced degree”) as the categories of this variable can be ranked based on evaluative connotations with some educational experiences being of higher value than others. However, the distance between each category cannot be determined and is not meaningful (i.e., it is difficult to determine if the difference between 3-“Some college” and 4-“College degree” is the same as the difference between 1-“Less than high school” and 2-“High school only”). With ordinal data, the categories have an ordinal relationship, but this relationship is not exact.

Secondly, according to Tacq (1997, pp.5-6), there are 2 different levels of measurement for quantitative data:

- Interval data is a form of quantitative data which has a definite natural order and for which the difference between data can be determined and is meaningful. For interval data, the categories have a relationship and this relationship is exact. Interval data, however, does not have an absolute zero point. For example, for temperatures, the difference between data can be determined and is meaningful (i.e., the difference between “10⁰C” and “20⁰C” is the same as the difference between “20⁰C” and “30⁰C”), but temperatures can go below zero Celsius.
- Ratio data is a form of quantitative data which has a definite natural order as the difference between data can be determined and is meaningful. For ratio data, the categories have a relationship and this relationship is exact. Ratio data has an absolute zero point. For example, for distances, the difference between data can be determined and is meaningful (i.e., the difference between “40 kms” and “50 kms” is the same as the difference between “50 kms” and “60 kms”) and 0 kilometers means no length at all with no possibility to go below 0 kilometers.

In this research, mostly 2 different levels of measurement were used: (i) ordinal data; and (ii) ratio data (i.e., see next section for details).

3.7.3.2 Province

The rationale for the selection of this variable was related to the fact that higher education institutions in this research were from Western Canada. Although the geographical denomination of Western Canada is very broad, it referred to the provinces of Alberta and British Columbia in this research (Boyko and Jones, 2010, pp.83-102). In Canada, higher education is governed by provinces and territories as opposed to the federal government as per the British North America Act (1867) and the Constitution Act (1867). This sometimes leads to major differences and incompatibilities in terms of the systems in place between provinces and territories. However, Alberta and British Columbia have a series of Memorandums of Agreements (e.g., Alberta BC Memorandums, 2007) in place aiming at offering systems that are comparable and aligned with each other.

For the province, 2 categories were considered. In terms of the measurement level for this variable, this variable was treated as a nominal variable with 1-“Alberta” and 2-“British Columbia (i.e., BC)”.

3.7.3.3 Strategy

The rationale for the selection and for the ranking of the variables related to strategy was based on the findings from the semi-structured interviews study and the institutional documents study, as well as on the Roles & Mandates provided by the government. Firstly, the semi-structured interviews study showed that the Roles & Mandates provided by the government had an impact on the higher education institutions, the programs offerings and the research programs (i.e., see Section 4.1.2.1). Secondly, the institutional documents study confirmed that the Roles & Mandates provided by the government had an impact on the higher education institutions, the programs offerings and the research programs with 3 types of higher education institutions: 1-“Specialized Art and Culture Institutions and Polytechnical Institutions”, 2-“Comprehensive Community Institutions” and 3-“Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions” (i.e., see Section 4.2.2.1). Thirdly, the Roles & Mandates (2007, pp.17-19) gave more details on the rankings in terms of the evaluative connotation of excellence of higher education institutions, programs offerings and research programs. In

the Roles & Mandates (2007, p.16) provided by the government, it is recognised that “there is a need to allow for differentiation within the industry” and therefore “it is envisaged that centres of excellence will be established in alignment with institutional strengths in research (...) and will also support achievement (...) in areas of instructional excellence”. The Roles & Mandates (2007, p.17-19) offered more details on the higher education institutions and their rankings in terms of excellence with: 1-“Specialized Art and Culture Institutions and Polytechnical Institutions”, 2-“Comprehensive Community Institutions” and 3-“Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions”. The Roles & Mandates (2007, p.17-19) offered more details on the programs offerings and their rankings in terms of excellence with: 1-“Non-Parchment Programs”, 2-“Certificates & Diplomas, Adult High School Completion”, 3-“Certificates & Diplomas, Adult High School Completion, Apprenticeship, Collaborative Baccalaureate Programming”, 4-“Apprenticeship, Certificate, & Diploma Programs for Technical Vocations, some Applied & Baccalaureate Degrees in Specified Areas”, 5-“Baccalaureate Degrees, Certificates & Diplomas, and Applied Degrees” and 6-“Comprehensive Baccalaureate & Graduate programs”. The Roles & Mandates (2007, p.17-19) offered more details on the research programs and their ranking in terms of excellence with: 1-“Applied Research”, 2-“Applied Research and Scholarly Activity” and 3-“Comprehensive Research Function”). As such, the rationale for the selection and the ranking of these variables was based on the way informants, institutional documents and the Roles & Mandates described the variables and the evaluative connotations of excellence for higher education institutions, programs offerings and research programs.

For the strategy in terms of Roles & Mandates of the institutions, 3 categories of public higher education institutions were considered. In terms of the measurement level for this variable, this variable was treated as an ordinal variable going from 1 to 3 (i.e., 1-“Specialized Art and Culture Institutions and Polytechnical Institutions”, 2-“Comprehensive Community Institutions” and 3-“Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions”) since its categories did show an order (i.e., there was a ranking in terms of the excellence of the higher education institutions) (Tacq, 1997, pp.5-6).

For the strategy in terms of the programs offerings, 6 categories were considered. In terms of the measurement level of this variable, this variable was treated as an ordinal

variable going from 1 to 6 (i.e., 1-“Non-Parchment Programs”, 2-“Certificates & Diplomas, Adult High School Completion”, 3-“Certificates & Diplomas, Adult High School Completion, Apprenticeship, Collaborative Baccalaureate Programming”, 4-“Apprenticeship, Certificate, & Diploma Programs for Technical Vocations, some Applied & Baccalaureate Degrees in Specified Areas”, 5-“Baccalaureate Degrees, Certificates & Diplomas, and Applied Degrees” and 6-“Comprehensive Baccalaureate & Graduate programs”) since its categories did show an order (i.e., there was a ranking in terms of the excellence of the programs offerings) (Tacq, 1997, pp.5-6).

For the strategy in terms of the research programs, 3 categories of research programs were considered. In terms of the measurement level, this variable was treated as an ordinal variable going from 1 to 3 (i.e., 1-“Applied Research”, 2-“Applied Research and Scholarly Activity” and 3-“Comprehensive Research Function”) since its categories did show an order (i.e., there was a ranking in terms of the excellence of the research programs) (Tacq, 1997, pp.5-6).

3.7.3.4 *Executive Leadership*

The rationale for the selection of the variables related to the governance profile was based on the findings from the semi-structured interviews study and the institutional documents study. Firstly, the semi-structured interviews study showed that the government appointed members of the community as representatives on the Board of Governors (i.e., see Section 4.1.2.2). Secondly, the institutional documents study confirmed that the government appointed members of the community as representatives on the Board of Governors, and showed that some internal members and executive members were also representatives on the Board of Governors (i.e., see Section 4.2.2.2).

For the governance profile of the higher education institutions, 3 variables were considered:

- Internal members sitting on the Board of Governors: The number of internal and elected members sitting on the Board of Governors (i.e., faculty, staff and students representatives) was considered. In terms of the measurement level, this variable was a ratio variable since the distance between distinctions could be determined and the variable had an absolute zero (Tacq, 1997, pp.5-6).

- External members sitting on the Board of Governors: The number of external and appointed members sitting on the Board of Governors (i.e., representation of the government, representation of the business community, etc.) was considered. In terms of the measurement level, this variable was a ratio variable since the distance between distinctions could be determined and the variable had an absolute zero (Tacq, 1997, pp.5-6).
- Executive leaders sitting on the Board of Governors: The number of executive leaders sitting on the Board of Governors (e.g., Chair of the Board of Governors, President, Vice-Chair, and Chancellor) was considered. In terms of the measurement level, this variable was a ratio variable since the distance between distinctions could be determined and the variable had an absolute zero (Tacq, 1997, pp.5-6).

The rationale for the selection and for the ranking of the variables related to the executive leadership profile was based on the findings from the semi-structured interviews study and the institutional documents study. Firstly, the semi-structured interviews study showed that Presidents had high credentials with previous academic & administrative experience in the higher education industry, but that there was a shift towards a more managerial approach of executive leadership with Presidents-CEOs (i.e., see Section 4.1.2.2). Secondly, the institutional documents study confirmed that Presidents had high credentials with previous academic & administrative experience in the higher education industry, and that some Presidents were described as Presidents, Presidents-CEOs or Presidents-Vice-Chancellors (i.e., see Section 4.2.2.2). The rationale for the ranking of the variable of credentials was based on the way informants and institutional documents described the variable and the evaluative connotation of excellence of the credentials (i.e., 1-“Less than a Masters”, 2-“Master’s level” and 3-“PhD level”). The rationale for the ranking of the variable of previous academic & administrative experience was based on the way informants and institutional documents described the variable and the evaluative connotation of excellence of previous academic & administrative experience (i.e., 1-“Chair or less”, 2-“Dean”, 3-“Vice-President” and 4-“President in another institution”). The rationale for the ranking of the variable of title was based on the way informants and institutional documents described the variable and the evaluative connotation of excellence of the titles (i.e., 1-“President” with an executive orientation only, 2-“President-CEO” with an executive and a corporate business orientation, and 3-“President-Vice-Chancellor” with an executive and a prestigious ceremonial orientation).

For the executive leadership profile of the higher education institutions, 3 variables were considered:

- President's credentials: 3 categories of President's credentials were considered. In terms of the measurement level, the President's credential was treated as an ordinal variable going from 1 to 3 (i.e., 1-"Less than a Masters", 2-"Master's level" and 3-"PhD level") as its categories did show an order (i.e., there was a ranking in terms of the excellence of the credential) (Tacq, 1997, pp.5-6).
- President's previous academic & administrative experience: 4 categories of previous academic & administrative experiences were considered. In terms of the measurement level, the President's previous academic & administrative experience was treated as an ordinal variable going from 1 to 4 (i.e., 1-"Chair or less", 2-"Dean", 3-"Vice President" and 4-"President in another institution") as its categories did show an order (i.e., there was a ranking in terms of the excellence of the previous academic & administrative experience) (Tacq, 1997, pp.5-6).
- President's title: 3 categories of President's titles were considered. In terms of the measurement level, the President's title was treated as an ordinal variable going from 1 to 3 (i.e., 1-"President", 2-"President-CEO" and 3-"President-Vice-Chancellor") as its categories did show an order (i.e., there was a ranking in terms of the excellence of the title) (Tacq, 1997, pp.5-6).

3.7.3.5 Organizational Performance

The rationale for the selection of the variables related to organizational performance was based on the findings from the semi-structured interviews study, the institutional documents study, as well as the OIA Report 567 (2000, p.9) to the government. Firstly, the semi-structured interviews study showed that effectiveness was related to business type indicators like Full Time Equivalent (i.e., FTE) students and resources allocated by the government were related to financial type indicators like operating grants from the government (i.e., see Section 4.1.2.3). Secondly, the institutional documents study confirmed that effectiveness was related to business type indicators like Full Time Equivalent (i.e., FTE) students and resources allocated by the government were related to financial type indicators like operating grants from the government (i.e., see Section 4.2.2.3). Thirdly, the OIA Report 567 (2000, p.9) showed that operating grants per FTE

students were used as an efficiency indicator to compare institutions and provinces in Canada.

For the organizational performance of the higher education institutions, 3 variables were considered:

- FTE students: The number of FTE students for each institution was considered as a metric for enrolments to reflect effectiveness. In terms of the measurement level, this variable was a ratio variable since the distance between distinctions could be determined and the variable had an absolute zero (Tacq, 1997, pp.5-6).
- Operating grant: The Canadian dollar amount of operating grant from the government available to higher education institutions to support their teaching and learning function was considered to reflect financial resources. This operating grant combined operating grants and Enrolment Planning Envelope funding (i.e., including international and continuing education students funding) into one grant. Students' tuition net of scholarship amounts, research funding, ancillary fees and all other revenues were excluded. In terms of the measurement level, this variable was a ratio variable since the distance between distinctions could be determined and the variable had an absolute zero (Tacq, 1997, pp.5-6).
- Operating grant per FTE students: The Canadian dollar amount of operating grant per FTE student was computed and used as a measure of productivity or efficiency. In terms of the measurement level, this variable was a ratio variable since the distance between distinctions could be determined and the variable had an absolute zero (Tacq, 1997, pp.5-6).

3.7.3.6 Human Resources

The rationale for the selection and for the ranking of the variable related to the Human Resources department was based on the findings from the institutional documents study. Indeed, the institutional documents study showed that most Human Resources departments focused on transactional activities and recruitment, a few focused on transactional activities, recruitment and development strategies, and finally some had a strategic plan (i.e., see Section 4.2.3). The rationale for the ranking of the variable was based on the way institutional documents described the variable and the evaluative connotation of excellence for the Human Resources department in terms of their strategic

role (i.e., 1-“Focus on Transactional Activities and Recruitment”, 2-“Focus on Transactional Activities, Recruitment and Development Strategy” and 3-“Strategic Plan”).

For the Human Resources department, 3 categories of Human Resources departments were considered. In terms of the measurement level, this variable was treated as an ordinal variable going from 1 to 3 (i.e., 1-“Focus on Transactional Activities and Recruitment”, 2-“Focus on Transactional Activities, Recruitment and Development Strategy” and 3-“Strategic Plan”) as its categories did show an order (i.e., there was a ranking in terms of excellence of the Human Resources department) (Tacq, 1997, pp.5-6).

3.7.4 Data Collection

The institutional documents were collected from March 2012 to December 2012.

The institutional documents were obtained via the web and printed for analysis. Using the web had two advantages. Firstly, the data were available electronically and as such could be analysed and categorized easily. Secondly, the data were available quickly which helped gather a representative amount of institutional documents for the entire population of publicly funded higher education institutions in Western Canada.

A project was established for the research, wherein data files were uploaded including all annual reports and accountability reports as well as institutional documents summary sheets and analyses (i.e., see Appendix S).

3.8 Data Analysis using Descriptive Univariate & Bivariate Statistics and Other Non-Parametric Statistics

A series of variables were selected from those available online to further explore the core themes and interrelationships identified as a result of the Grounded Theory analytical process. These core themes were related to strategy, executive leadership, organizational performance, Management Control Systems and Human Resources.

The analysis of variables within a Grounded Theory context was based on: (i) descriptive univariate statistics to explore further the core themes extracted from the semi-structured interviews study and the institutional documents study; and (ii) descriptive bivariate statistics as well as other non-parametric statistics to explore further the interrelationships between the core themes extracted from the semi-structured interviews study and the institutional documents study.

All variables computations and statistical analyses were performed using *IBM SPSS Statistics (Version 19)*.

3.8.1 Descriptive Univariate Statistics

The goal of the triangulation study section was to further explore the core themes extracted from the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study for the population of publicly funded higher education institutions in Western Canada.

Since the data included the population for all publicly funded higher education institutions in Western Canada, raw data could be analysed in terms of descriptive univariate statistics.

As a consequence, computing descriptive univariate statistics (e.g., frequencies, percentages, means and standard deviations) provided an accurate picture of the core themes for the population of the publicly funded higher education institutions in Western Canada.

3.8.2 *Descriptive Bivariate Statistics and Other Non-Parametric Statistics*

The goal of the triangulation study also was to further explore the interrelationships existing between the core themes extracted in the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study.

3.8.2.1 *Non-Parametric Statistics*

For parametric procedures to be applied, some assumptions needed to be met (Tacq, 1997, pp.5-6; Smith, 1988, pp.653-684). Firstly, the data needed to be normally distributed or to be applied a transformation to become normally distributed (e.g., logarithmic transformations). Secondly, a significant sample/population size needed to be available (e.g., at least 30 observations when the population parameters showed a normal distribution and more when the population parameters did not show a normal distribution). Thirdly, levels of measurement preferentially needed to be at an interval/ratio level.

Some of these assumptions were not met in the triangulation study. Statistical procedures had to be applied on variables with distributions that were not normal, with a relatively small population size and with mostly low levels of measurement (e.g., ordinal level).

As a consequence, parametric procedures and/or structural equations modelling could not be applied to explore the core themes and their interrelationships (Smith, 1988, pp.653-684). Another consequence was that a series of non-parametric statistics (i.e., distribution free statistics) needed to be applied to explore the core themes and their interrelationships (Tacq, 1997, pp.5-6; Smith, 1988, pp.653-684). Non-parametric statistics are used when the researcher is reluctant to assume normality of the data, since non-parametric statistics are intended to be robust (i.e., appropriate no matter what the distribution of the data) (Smith, 1988, pp.653-684).

3.8.2.2 *Descriptive Bivariate Statistics*

To test the interrelationships between core themes (i.e., or variables), one usually computes Pearson's correlation coefficients (Tacq, 1997, pp.5-6; Smith, 1988, pp.653-684). Non-parametric equivalents to Pearson's correlations coefficients are Spearman's

rho, Kendall tau or coefficient gamma (Tacq, 1997, pp.5-6; Smith, 1988, pp.653-684). Spearman rank correlation coefficients or Spearman's rhos do not assume normality in the data and can be used to explore the interrelationships existing between variables at an ordinal and/or ratio level (Tacq, 1997, pp.5-6; Smith, 1988, pp.653-684). Please refer to Equation (3.1) below for details on the way Spearman's rhos are calculated.

$$r_s = 1 - \frac{6\sum d^2}{n(n^2-1)}$$

Notes: rs = Spearman rho, d = difference between the ranks for each pair of observation, n = number of paired observations. The selected cut-off mark for the p-value is 5% (0.05).

Equation (3.1): Spearman Rhos

As a consequence, Spearman's rhos were used to explore interrelationships between the core themes (i.e., or variables). Please note, however, that rank bi-serial correlations were used when one of the variables was a nominal dichotomous variable (i.e., the variable of province).

3.8.2.3 Other Non-Parametric Statistics

To test the differences between groups of core themes (i.e., or variables), one usually computes a MANOVA or a series of one-way ANOVAs or t-tests (Smith, 1988, pp.653-684). Non-parametric equivalents to one-way ANOVAs or t-tests were used to further explore the differences in mean ranks and assess the null hypothesis that the medians are equal across the categories of Roles & Mandates.

Kruskal-Wallis or h-tests are non-parametric statistics equivalent to one-way ANOVAs or t-tests. Kruskal-Wallis tests do not assume normality in the data, are less sensitive to outliers, and can be used with variables at an ordinal and/or ratio level (Tacq, 1997, pp.5-6). Kruskal-Wallis tests are an extension of the Mann-Whitney tests that allows for the comparison of more than 2 independent groups (Smith, 1988, pp.653-684). Please refer to Equation (3.2) below for details on the way h-tests are calculated.

$$h_{(df)} = \frac{12}{n(n+1)} \sum_{i=1}^k \frac{R_i^2}{n_i} - 3(n+1)$$

Note: h = h test, n = total number of observations in all samples, R_i = rank of the sample, df = degree of freedom. The selected cut-off mark for the p -value is 5% (0.05).

Equation (3.2): H-Tests

As a consequence, Kruskal-Wallis or h -tests were used to explore differences between categories of core themes (i.e., or variables). Please note, however, that Mann-Whitney tests or u -tests were used as post hoc tests to make pairwise comparisons among groups. Type I error across pairwise comparisons was controlled for by applying a Bonferroni corrections (i.e., significance level/number of pairwise tests or $0.05/3 = 0.016$) (Smith, 1988, pp.653-684).

3.8.2.4 Summary

In this part of the research, 2 levels of measurement were mostly used: (i) ordinal; and (ii) ratio. The non-parametric statistics applied in this part of the research had the advantage to be robust (i.e., no parametric assumptions) and flexible enough to be used with data having these levels of measurement: (i) the Spearman rho could be used to explore interrelationships between two variables measured at an ordinal and/or ratio level; (ii) the Kruskal Wallis test could be used to compare differences between three independent groups with dependent variables measured at the ordinal and/or ratio level; and (iii) the Mann-Whitney test could be used to compare differences between two independent groups on dependent variables measured at the ordinal and/or ratio level. Indeed, in the Kruskal Wallis test and the Mann-Whitney test, a chi-square statistic is used to evaluate differences in mean ranks and assess the null hypothesis that the medians are equal across the groups.

3.9 Reliability, Validity and Generalisability

3.9.1 Reliability and Validity

According to Patton (2001, p.85), reliability and validity are two characteristics that need to be assessed.

Firstly, in a non-positivist study context, reliability is related to the concept of accuracy. In this research, accuracy was obtained by the use of a pilot study and methodological triangulation. Secondly, in a non-positivist study context, validity is assessed using a wide range of provisions. In this research, a number of provisions were made to increase the validity, including: (i) semi-structured interviews prompts created prior to undertaking interviews; (ii) semi-structured interviews recorded and transcribed; (iii) transcripts returned to all informants with no significant amendments required; (iv) summary of findings forwarded to informants with no significant amendments suggested; and (v) third party randomly checking coded data with no significant amendments suggested.

Bryman (2001, pp.693-710) argued that within a non-positivist study context, it was critical that the researcher be able to demonstrate rigour to ensure the findings were developed from a methodologically and analytically sound base. It was the presence of rigour that added value to the findings (Stenbacka, 2001, pp.551-555; Silverman, 2000, p.45; LeCompte and Goetz, 1982, pp.31-60).

Guba and Lincoln (1998, pp.67-79) proposed two primary criteria to determine the rigour of a non-positivist study: (i) trustworthiness; and (ii) authenticity.

3.9.1.1 Trustworthiness

The first criteria of rigour, trustworthiness, had four sub-criteria: (i) credibility; (ii) transferability; (iii) dependability; and (iv) confirmability (Bryman, 2001, pp.693-710). Each of these sub-criteria was addressed within the context of this research.

3.9.1.1.1 *Credibility*

Credibility is described as the non-positivist equivalent of internal validity (Guba and Lincoln, 1998, pp.67-79). The researcher needed to ensure the research was carried out according to the canons of good practice (Bryman, 2001, pp.693-710).

In this research, a robust research design, combined with appropriate sampling tools and interviewing techniques were identified as essential pre-conditions to ensure the credibility of the findings. Firstly, the use of both primary (i.e., semi-structured interviews) and secondary (i.e., institutional documents) forms of data and the comparative approach of the Grounded Theory to identify the core themes and their interrelationships, all assisted in achieving the credibility of the findings. The comparative approach of Grounded Theory to produce causal mapping for both the semi-structured interviews study and the institutional documents study led to similar patterns in terms of core themes and subordinate themes with only minimal differences (i.e., see Appendix R and Appendix U). Secondly, transcripts were returned to all informants to confirm the accounts were accurate (Miles and Huberman, 1984, p.13) and no significant amendments were required. Thirdly, Guba and Lincoln (1998, pp.67-79) stated that if a researcher had direct on-going contact with the research informants and industry, the research would likely provide more credible findings. Thanks to a position in a publicly funded higher education institution in Western Canada, the researcher had direct on-going contacts with the research informants and industry.

3.9.1.1.2 *Transferability*

Transferability is described as the non-positivist equivalent of external validity (Guba and Lincoln, 1998, pp.67-79). Bryman (2001, pp.693-710) contended that non-positivist findings were best oriented to the contextual uniqueness and significance of the social world being studied. The transferability of the findings depended upon the degree of congruence between the sending context within which the research was conducted and the receiving context to which it was applied. In order to strengthen the transferability of the research, Guba and Lincoln (1998, pp.67-79) proposed that by providing a thick description of a phenomenon, the researcher could provide others with a reference point or database for making judgements about the transferability of the findings to other

contexts. Thick descriptions required the researcher to provide sufficient details of the original observations or commentaries and the environments within which they occurred.

In this research, the sampling process was designed to gather informants and institutional documents from a variety of institutional, professional and provincial contexts (i.e., “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions“, “Comprehensive Community Institutions” to “Specialized Art and Culture Institutions and Polytechnical Institutions”, Academia to Human Resources, Alberta to British Columbia, etc.). It was acknowledged, however, that applications of the findings to any other contexts may not be possible without increasing the representativeness of the informants and institutional documents. Also, it was acknowledged that the use of a convenience sampling strategy for the semi-structured interviews study and the institutional documents study had some limitations in terms of the transferability of the research, since the informants were mostly from the network of the researcher and the institutional documents were from institutions in Western Canada.

3.9.1.1.3 *Dependability*

Dependability is described as the non-positivist equivalent of reliability (Guba and Lincoln, 1998, pp.67-79). Bryman (2001, pp.693-710) contended that maintaining academic rigour within a non-positivist research was difficult as the unique natural settings of the research could not easily be reconstructed (i.e., difficulty in replicating the exact setting of semi-structured interviews or institutional documents; the business and/or political environment may have changed; or the informants may have experienced career moves). This was overcome by the use of the criterion of dependability. Dependability within the context of non-positivist research related to the efforts made by the researcher to establish the merit of the research by adopting a rigorous auditing approach (Guba and Lincoln, 1998, pp.67-79).

In this research, the methodological approach involved the keeping of complete records, data, findings, interpretations and recommendations (i.e., see Appendix S) (Bryman, 2001, pp.693-710; Guba and Lincoln, 1998, pp.67-79). By providing an in-depth explanation of the methodology, this research enhanced the ability of any other researchers to examine similar problems within different settings.

3.9.1.1.4 Confirmability

Confirmability is described as the non-positivist equivalent of objectivity (Guba and Lincoln, 1998, pp.67-79). Bryman (2001, pp.693-710) maintained that confirmability required the researcher to have a plan of action that decreased the personal biases that may occur in non-positivist research. However, complete objectivity was impossible to achieve, so researchers could only show that they acted in good faith (Guba and Lincoln, 1998, pp.67-79). Yin (1994, p.12) stated that non-positivist research that used multiple sources of evidence and interpretation was rated more highly, in terms of overall quality, than those relying on single sources of information or interpretation.

In this research, semi-structured interviews data were compared with one another and with other sources of information like institutional documents further strengthening the confirmability process (i.e., see Appendix R and Appendix U). It was acknowledged, however, that even if the findings from the semi-structured interviews study and the institutional documents study were mutually supportive, they were focusing on two different levels of strategy: (i) the enacted strategy or strategic actions accessed via the semi-structured interviews; and (ii) the stated strategy or strategic stance accessed via the institutional documents. Within the context of this research, confirmability was insured by obtaining data from a variety of informants and institutions. While Glaser (1998, p.12) discouraged the use of recordings, it was decided in line with Strauss and Corbin (1998, p.18) that the semi-structured interviews would be recorded to allow the researcher to reflect on the interviews over an extended period of time and to enhance the confirmability of the notes and memos (i.e., see Appendix E).

3.9.1.2 Authenticity

In addition to the four trustworthiness criteria, Guba and Lincoln (1998, pp.67-79) proposed two further criteria to establish the authenticity of the research: (i) fairness; and (ii) authenticity. These criteria were addressed in this research.

3.9.1.2.1 *Fairness*

Fairness was related to a quality of balance, where all stakeholders' views were apparent in the text. Omission by the researcher of any of the informants' voices would have reflected a methodological bias (McNally, 2009, p.80).

In this research, fairness was achieved by the inclusion of all semi-structured interviews in the data analysis in a way that represented the diversity of institutions (i.e., see Table 3.1). Also, the researcher attempted to obtain a diversity of informants in the sample and ensured that their views had been included and discussed in the findings. The use of the Grounded Theory approach, the identification of themes and the subsequent saturation of these themes supported the inclusion of the voices of all informants.

3.9.1.2.2 *Ontological and Educative Authenticity*

Ontological and educative authenticity occurred when the research provided the informants with an opportunity to reflect on their social environment, especially when the purpose of the research was to raise awareness of both the research informants and those who surrounded them with some recommendations to practitioners (Guba and Lincoln, 1998, pp.67-79).

In this research, ontological and educative authenticity was achieved by the use of a semi-structured interviews and the use of open-ended questions to encourage the informants to be self-reflective about their perceptions and views and how they interpreted the dynamics surrounding their institution. Informal interviews (i.e., second stage interviews) were also used as a way to give a voice to any concerns in terms of ontological and educative authenticity of interpretations by the researcher. Informal interviews were also used when the need to clarify certain points or obtain a deeper understanding of a core theme was identified (McNally, 2009, p.81).

3.9.2 Generalisability

There are two main issues with generalising case study research (Easterby-Smith, Thorpe and Lowe, 2008, p.52). The first is whether the sample can be generalised to the full population of the case study and the second is whether the case study research can be generalised to the wider world. Yin (1994, p.12) suggests that case studies can be used to develop theoretical frameworks about the case that can then be generalised when triangulation is being used. In that sense, triangulation improves the reliability, validity and generalisability of case studies (Easterby-Smith, Thorpe and Lowe, 2008, p.53).

Denzin and Lincoln (1994, p.32) distinguished four types of triangulation: (i) chronological triangulation (i.e., several sampling strategies with data collected at different times); (ii) researcher's triangulation (i.e., more than one researcher gathering and interpreting data); (iii) interdisciplinary triangulation (i.e., more than one theoretical position in interpreting data); and (iv) methodological triangulation (i.e., more than one method for gathering data).

In this research, there was an interdisciplinary triangulation with a rigorous literature review that drew on a wide range of research, fields, disciplines, sources, organisations and countries (Easterby-Smith, Thorpe and Lowe, 2008, p.146). In this research, there also was a methodological triangulation. The core themes, subordinate themes and interrelationships were established with a number of insights grounded in the research methodology with different samples/populations and a combined methodology designed to triangulate the research findings (Easterby-Smith, Thorpe and Lowe, 2008, p.146).

This level of triangulation was a significant improvement over typical research in the field of strategy, executive leadership and organizational performance. Indeed, there are indications that triangulation appears in only a third of the research that was published (Malhotra and Grover, 1998, pp.407-423).

CHAPTER 4 - FINDINGS

This chapter summarises the findings from the semi-structured interviews (i.e., primary data) and institutional documents (i.e., secondary data) using a Grounded Theory analysis process (i.e., open coding, axial coding, selective coding, theoretical coding, memoing and diagramming). This chapter also summarises the findings from the triangulation study (i.e., triangulated data) that is conducted to further explore the core themes extracted from the Grounded Theory analysis (i.e., descriptive univariate statistics on census data) and their interrelationships (i.e., descriptive bivariate statistics and other non-parametric statistics).

4.1 Findings of the Semi-Structured Interviews Study

The research questions are: (i) whether and how changes in the external and internal strategic environment of the higher education industry can be described and explained in terms of changes in governmental rules, competitive markets and organizational culture; (ii) whether and how the strategic stance of higher education institutions, executive leadership and organizational performance are strategically aligned with a mediating role played by Management Control Systems; and (iii) whether and how the strategic stance of the higher education institutions, executive leadership and organizational performance are strategically aligned with a mediating role played by Human Resources.

The purpose of this section is to provide a summary of the findings of the semi-structured interviews study. As the data collection and analysis progressed, core themes were identified from the data analysis that acted to form an enhanced contingency theoretical framework of changes in the external and internal strategic environment of the higher education industry, strategy, executive leadership, organizational performance, and the role played by Management Control Systems and Human Resources (i.e., see Appendix U).

The core themes extracted from the semi-structured interviews study were: (i) the informants' description and explanation of changes in the external and internal strategic environment of the higher education industry based on changes in the governmental rules,

competitive markets and organizational culture; (ii) the informants' description and explanation of strategy, executive leadership and organizational performance with a mediating role of Management Control Systems; and (iii) the informants' description and explanation of strategy, executive leadership and organizational performance with no mediating role of Human Resources.

Please note that, in the semi-structured interviews, informants were considered to be actors describing and explaining social phenomena in their institution. As such the focus of the semi-structured interviews was framed at the institutional level as opposed to the individual level, despite the fact that raw data were presented to support the credibility of the Grounded Theory analysis (Suddaby, 2006, pp.633-642).

4.1.1 Higher Education Industry

The first research question was whether and how changes in the external and internal strategic environment of the higher education industry could be described and explained in terms of changes in governmental rules, competitive markets and organizational culture.

The first core theme identified as a result of the Grounded Theory analytical process described and explained the higher education industry to capture the informants' understanding as to the whether and how the external and internal strategic environment of the higher education industry had changed.

The subordinate themes identified as a result of the Grounded Theory analytical process were: (i) governmental rules; (ii) competitive markets; and (iii) organizational culture.

Please note that the focus on competitive markets and organizational culture was reportedly secondary to the focus on governmental rules. Please also note that these three subordinate themes were not independent from each other but interrelated, as expressed by one informant:

- *“Those three were very dependent of each other... As the changes in the rules, changed the culture, and then the focus on the market... And reversely... There were not independent but strongly correlated.”*

4.1.1.1 Governmental Rules

Rules set by the government were the most prominent theme related to external and internal changes in the higher education. The theme of governmental rules was associated to the themes of political cycles and Roles & Mandates from the government.

Firstly, changes in governmental rules were reportedly cyclical and dependant on the political party in power (e.g., more or less conservative vs. liberal). Changes in governmental rules were not related to the legislation (e.g., Post-Secondary Learning Act, 2004) governing higher education institutions, but to political cycles that affected policies (i.e., Roles & Mandates) and funding to the public sector including the higher education industry. The theme of political pressure was expressed the following way by informants:

- *“In regards to the government impact on the organization, uuuh, they first of all, there was a change in government in the early, it was probably in about 2002, when the New Democratic Party was defeated and the liberal party came in and they have much more of a conservative influence. And so that played itself in two ways, one was a reduction of funding simply because they wanted to be more fiscally responsible I suppose. And that of course brought programs cuts and lay off and so forth. I guess the other change from government is that they became much more militant in terms of making the College accountable for their use of the funds and so, uuuh, more and more funding became tied to specific target groups or very specific objectives as opposed to giving us a block a funding we can do as we chose. The funding was split up between envelopes for, you know, aboriginal issues or, you know, developing trades etc... And, so the College lost a great deal of flexibility in terms of how they could allocate the funding.”*
- *“So with the politics at the time, the conservatives, they wanted to close the College. (...) but she doesn’t want her College to close because that’s where she gets the votes, so she had to find a way to keep it running. They had that flash of brilliance (sarcasm) that they would merge this College with the other bigger ones in order to keep the votes.”*
- *“The original campus was situated in a very small town, if the town was hearing about changes; they would get heavily involved politically.... The town was fighting politically against any decision for the institution.”*

Secondly, the Roles & Mandates from the government were important factors in the description and explanation of changes in governmental rules in the higher education industry. These Roles & Mandates included the need for higher education institutions to be fiscally responsible (i.e., reduce costs to government) and to find alternative sources of funding (i.e., reduce dependence on governmental funding and find alternative sources of revenues). These themes were expressed by informants in the following way:

Roles & Mandates and Funding from the Government

- *“So the provincial government was the primary stakeholder.... They were the primary funding provider of the institution... Financial constraints have impacted the institution... It was only provincial government mandates and not at all the community... A lot of this was related to the lack of money and the lack of resources. Trying to make education more efficient, with more technology just to make education cheaper...”*
- *“From the viewpoint of funding, the whole approach has changed from a period of 10 years ago.... 10 years ago, we had stable and predictable funding with 6 % increase every year guaranteed on a 3 years rolling cycle ! And 4 years ago all changed overnight... 1% a year for the last 3 years !... And 60% of revenue comes from the government so it had a major impact on how to develop the strategy. Before it was a multi-years increase with an idea on the long run of what we would be getting. So, you were able to build a strategy because you knew what would happen.... But now, you don’t know anything until the last minute.”*
- *“The funding structure did change too.... The cut in funding did change the strategy of the institution ... The institution had to become more flexible... with less focus on funding per program, also known as “envelops funding” and more on total number of students or Full Time Equivalent(FTE) students.”*
- *“Executive leaders of the future need to be very comfortable with ambiguity and uncertainty. The environment used to be very consistent over time, and people had been growing up in that stable environment. But, now they need to deal with ambiguity and uncertainty for funding and everything from government.”*
- *“It was not so much the fact that voters wanted money to go to healthcare... It was much more that we had no choice... It was always crisis management with a huge black hole that was eating up all the money and never ending... It was always a chore to compete against the Ministry of Healthcare! Funding was also necessary in Advanced Education. But the easy place to take money from was from Advanced*

Education to put it in Healthcare... The Premier said that education could wait but not healthcare... “

Roles & Mandates and Alternative Sources of Funding

- *“I have been in the post-secondary for 14 years..... I have seen a stiff decline in funding from the government. As a consequence, a more business-like approach had to be taken for people..... To be more entrepreneurial in Advanced Education... Engaging in partnerships that were beneficial or more linkages in terms of programs and engaging donors not only for students but for the industry to give money...”*
- *“I have been at XXX for 4 years and what I could see is an increase in community relations or the fundraising focus of the organization.... It is a total focus on donor’s stewardship and being able to create that relationship with donors... Like, for example, we need some endowments to be able to finance some positions.... So, this is money donated where the principal stays the same but the interests are being used to pay for the salary of someone. They changed a few admin people for them to be fundraisers as opposed to managers of the curriculum and increase these endowments...”*
- *“Also, there were new programs that would help the institutions to get some donations from big corporations. It was my responsibility to be accountable to our community and give community a voice into our programming, and turn that into dollars of course... And that was very strategic...”*
- *“There was a focus on fundraising... Business and industry are so inundated with requests for money, so they want to know what is in it for them! So it leads to giving them special training in exchange of the money..... You need to have a relationship with them....”*
- *“We were very entrepreneurial too.... We were going to industry and asking for money in exchange of our programs. So, it was a business...”*
- *“Competition encouraged us to be better BUT the other side was to have and build unique partnerships... For example the xxx senior care facility on campus, the learning centre... Where it is 2 equal partners working together... That is partnerships with a business to increase donations.”*

4.1.1.2 *Competitive Markets*

Changes in governmental rules had an impact on the way higher education institutions had to focus on their competitive markets to find alternative sources of funding. Indeed, since funding was attached to enrolment and retention outcomes, and since alternative sources of funding were necessary for higher education institutions to be sustainable, it was important that higher education institutions focus on their competitive markets environment.

The theme of competitive markets was associated to the theme of institutional partnership vs. institutional competition (i.e., “co-petition”) and the theme of changes in students’ and employers’ demands. The focus on competitive markets was described as less important than the focus on governmental rules (i.e., as enrolments were generally very high). These themes were expressed the following way by informants:

Partnership vs. Competition (i.e., Co-Petition)

- *“We have a Minister that talks about campus Alberta with integrated systems of institutions, but we do not, we are all competing for grant money, for faculty, and students... And we are not coordinated...”*
- *“Institutions were putting some ads in the territory of each other... Or even within the same institution they were transferring courses for another University... So they partnered but they were competing...”*
- *“The competition of the university (...) It increasingly became a factor in our enrollments particularly in my department, uuuh, because University offered that commerce degree and so the diploma programs that we offered were certainly negatively impacted (...) We were also facing private competition, xxx opened up in town and was scooping away students on the basis of reduced level of tuition. Urrr, we became aware that they were offering very sub-standard credentials but...”*
- *“Dr XXX was the President of xxx and he created the word “co-petition”... We are expected to work together but at the end of the year the most FTEs or satisfaction rates got more dollars. So we cooperate but compete...”*

Students’ and Employers’ Demands

- *“New courses and programs were there and we needed to demonstrate that there was a demand that some students wanted to take that course in sufficient number and some employers needed those courses for their future employment needs.... They had*

to have at least a minimum number of students... If students were not coming up then the course would have to be cut. When I came up with the terminology course, I had to prove that it would be useful to the nursing department as part of the prescribed programs.”

- *“5 to 10 years ago, our reputation was based on great faculty, BUT it is not the primary criteria anymore... That was no more the most important... What set us aside as compared to competition for employers? What was the best value for investment of time and money of employers and the students? Students want some athletics programs and employers want some good tech skills. Let’s do that then! At the end of the day, we were not really into adapting to demands as much as adapting to the government and consequences for the organisation.”*
- *“We don’t care about competition! Last years, we had too many students... We had 3000 applications. A lot of students were refused. So we are not concerned about competition or the market so much.”*

4.1.1.3 Organizational Culture

Changes in governmental rules also had an impact on the organizational culture of higher education institutions. Since governmental rules forced higher education institutions to rely less on funding from the government, to become more independent, fiscally responsible and find alternative sources of revenue, institutions needed to have a more managerial and entrepreneurial approach to higher education. This resulted in a culture shift to adapt to the new environment.

The theme of organizational culture was associated to the themes of culture shift (i.e., from a “public good within a sector” to an “accountable business within an industry”) and of managerial/entrepreneurial culture. Informants expressed these themes the following way:

Culture Shift

- *“At xxx, there is a new versus old part of the faculty... No judgment.... BUT it started in the last 5 years with a huge turn-over of staff.... That changed the culture of the organization because there was far less concern about status quo anymore... There was a philosophical struggle between old faculty with their ivory tower mentality and the new faculty... Most of all for liberal art faculty who thought they were better than*

welding BUT that has changed significantly... We were a nice sleepy conservative institution... Rolling along.... But not anymore...”

- “There was a shift from the perception that education was a matter of right of the community and therefore a public good and therefore anything they wanted would have to be funded... As it was a right.”
- “It is a requirement; the shift in culture is that the government needs things for reporting... The financial auditor is not saying that there is abuse, but after 9/11, it was a problem about safety and reporting on that.... How it was delivered was more as a mandate. So we had to interpret the government’s mandate in order to translate it for staff. We have funding but we need to be compliant making and accountable.”

Managerial and Entrepreneurial Culture

- “When I was in the xx system, we focused on academic credentials and people having an academic background... Then when we were hiring we had many debates on the Board to get people to be the very best... So we needed people to raise money... We just hired a person to be community oriented and business oriented.”
- “Oh yeah, very corporate now, I mean we have clients, we have a product to deliver, we need to be the best, we need to revamp, to revise our product and to make sure they have the best quality of experience, so it is like a corporate culture now.”
- “The title Chief Executive Officer was developed by bureaucrats to emphasize that these institutions needed to be financially sustainable and we borrowed the title from the corporate sector... It would have been better to be called a President as it has international acceptance and it is both business like and education focused. But, we were called President-CEOs to look more corporate in terms of culture.”
- “More managerial with the private sector that is needed for funding, and also we have CFOs now, and also Presidents are all using a business cycle now, So I would say that there is a big business orientation... I would say some organizational culture shift.”

4.1.2 Management Control Systems

The second research question was whether and how the strategic stance of the higher education institutions in Western Canada, executive leadership and organizational performance were strategically aligned with a mediating role played by Management Control Systems.

The second core theme identified as a result of the Grounded Theory analytical process, described and explained strategy, executive leadership and organizational performance with a mediating role played by Management Control Systems.

The subordinate themes identified as a result of the Grounded Theory analytical process were: (i) strategy; (ii) executive leadership; and (iii) organizational performance, with a focus on the notion of compliance to the Management Control Systems set-up by the government.

4.1.2.1 Strategy

The theme of strategy was related to the themes of strategic alignment to Roles & Mandates and strategic alignment of executive leaders as opposed to strategic misalignment of faculty and staff.

Firstly, with the recent changes in the external and internal strategic environment of the higher education industry, some questions of fundamental importance started to affect strategic planning, strategy implementation and strategic evaluation. The theme of strategic alignment to the Roles & Mandates was expressed the following way by informants:

- *“The provincial government gives us mandates for the post-secondary.... It is structured in terms of these mandates, these decide on our strategy.... Each post-secondary is formatted in line with the mandates; I have seen that change in the last 10 years.”*
- *“I think with the new strategic plan and mandates, we are now very focused on being strategically aligned... I think the Board of Governors focused on finding a President*

that was in line with our new mandate for him to be more entrepreneurial and focused on strategic planning, alignment and money.”

- *“You have administration trying to cope with budgetary pressures, people like students, alumni or faculty focusing on other goals, and so getting things into alignment with the mandates is a political process and on most campuses is very difficult.”*

Secondly, most informants reported that strategic alignment was observed in terms of efficiency but not in terms of effectiveness. Executive leaders in the Top Management Team understood the strategic orientation required by the government in terms of financial accountability (i.e., efficiency). In contrast, faculty and staff failed to follow the strategic orientation of their institution related to the teaching programs and research outcomes (i.e., effectiveness). This theme of strategic alignment of executive leaders vs. misalignment of faculty and staff was expressed by informants in the following way:

Strategic Alignment of Executive Leaders

- *“My job as the President everyday was to make sure leadership, strategy, and performance were aligned.”*
- *“For me the core principle of leadership as the President was to make sure all people were aligned with the organization... Executives needed to be different to me otherwise I can do their job but they needed to be in the same direction.... You cannot have good performance outcomes if people try to resist the direction you are trying to give!”*
- *“As a leader you needed to give a mission, vision, a goal and a plan to get there... And people needed to understand that.... So, when I was looking for executives I was looking at people that fit with my vision. So I was always trying to ensure to have people that buy into the strategic alignment... And at the time, we had predictable funding, predictable strategy and as such we could have a strategic alignment plan...”*
- *“Routinely, each year, I would have performance appraisals; this is not something that came from me... It was a way for the executive leaders to identify what needed to be done... What development would they have that would make them better on that dimension, and we had to negotiate that with them. This was not driven by my appreciation but based on their perception; we would reach agreement on what was the target and what could be done better.”*

- *“There was some way for the President to make senior admin accountable... From the VPs to the Deans, there are some mandates letters and senior admin need to report regularly on whether or not they reached their target.”*
- *“We had bonuses, we had performance package, and it was all related to the enrolments... It was related to the retention. (...) We had a package on the placement also of all the graduate students, yeah, the Director of Education and the Chair, so that’s why we were going outside of the block, so that if we see that students have problems.... We had those special workshops we created for them with tutors and everything to make sure they excel. If they succeed, we’re going to succeed with a huge bonus at the end of the year (...).”*
- *“If executive leaders were not fitting I fired them... It was always important that there was strategic alignment and making people fit with it. When I went to the Board I said that I would reserve the right to get rid of any senior person that didn’t fit. Thankfully, all of them bought into the plan...”*
- *“When the President selects a VP, it is because that person has a concern for the whole xx not just for their team... If you can’t understand that, I’d let you go... Dr Martin Luther King once said people make decisions because it is popular but when you are a leader it is because the decision is right!!”*

Strategic Misalignment of Faculty and Staff

- *“The gaps were ... mmmm.... Between process and execution... The weak link in the planning process is near the frontline... The staff and faculty.... Staff and faculty are not clear about what is expected... They are not motivated either... That’s normal! They have only a distant relationship with the strategic plan. Their evaluation of performance is not even linked to the plan.”*
- *“Faculty likes to take decisions, but they are not accountable for that.... So not “alignable”. They are very powerful with their association... But also the minimum standard of excellence expected in terms of teaching, community development, and completion of targets is not set for them. They do whatever they want!!”*
- *“I think that what got in the way is the organizational culture... Some institutions celebrated 100 years in business.... People have some habits and it is hard to negotiate some changes within the collective agreement to make sure everybody is aligned to the new mandate, the new president, and the new executives... I think it is well aligned up to the operational plan with Deans and Chairs... Then I am not sure it*

is with faculty and staff... They are protected by their collective agreements and collective agreements are hard to change... Bargaining takes time.”

- *“For faculty, alignment is hoping for attrition and people that are close enough to retirement for them to disappear.”*

4.1.2.2 Executive Leadership

The theme of executive leadership was related to the themes of Board of Governors and executive leaders (e.g., President and Top Management Team).

Firstly, higher education institutions had a Governing Body (e.g., Board of Governors) responsible for the assets of the institution as well as for the strategic direction. The Governing Body was constrained by the status of the higher education institution (i.e., Roles & Mandates) and its jurisdiction (e.g., national, provincial and local regulations) and the conditions under which it may receive public and/or private funding. Its formal status entailed auditing and reporting obligations (e.g., Management Control Systems) to the government.

Secondly, higher education institutions had an Academic Body (e.g., Academic Board with the Deans, Vice-President Academic and President). The Academic Body's authority was formally delegated from the Governing Body, and authority was exercised over all academic matters. Academic governance generally covered matters such as admission of students, discipline of students, academic awards and conduct of teaching and research.

Thirdly, interactions between the two bodies existed, since most higher education institutions operated through joint committees bringing together members of the Governing Body and the Academic Body. This phenomenon was described as shared governance and was regarded as good practice in the higher education industry. The Top Management Team was expected to have a special responsibility within this shared governance model, since the head of the institution (i.e., President) generally was a member of the Governing Body and the Chair of the Academic Body.

4.1.2.2.1 Board of Governors

Shared governance in the higher education industry of Western Canada, with the specific characteristics of the Board of Governors and of the President as an employee of the Board of Governors, was summarised the following way by informants:

- *“The Board of Governors is an appointed body by the government. We have been lucky that the public members nominated have a strong record of serving in the community, then they are known to the provincial government and then they are appointed. We have a good mix of gender, private-public sector; the Chair of the Board oversees what the President does...”*
- *“The issues of governance and how the governance is chosen... mmmmm... The Board of Governors of any organization can have a significant impact on what the organization does and its goals are, and so the selection of that becomes extremely important. In post-secondary education the majority of Board Members are appointed by the government. The people the provincial government chooses will have a huge impact on the focus of the organization. (...) Business people on the Board? They would believe the institution should be run as a training school and they would tend to hire a business manager as a President to run the institution. (...) In Universities, the people that are appointed tend to be more sophisticated, they tend to be from larger organizations (...), they tend to have a better understanding of education and a better understanding of academic institutions as compared to training institutions.”*
- *“I was interviewed by the Board and my view was that the President did a great job at making us become a University; the next one should have been one that has a new vision for this new University... He was just having a maintenance mode.”*
- *“I did my happy dance when he left... Fortunately, the Board asked the President to leave because he was disagreeing with the Board on the vision of the College.”*

4.1.2.2.2 Executive Leaders

Shared governance in the higher education industry also meant that the exercise of leadership was expected to be distributed with a focus on academia and stewardship to the government. A consequence of that notion of shared governance was that academics were expected to have a say in the institution and executive leaders were expected to

understand the needs of academia. Another consequence of that notion of shared governance was that the government was expected to have a say in the institution and executive leaders were expected to understand the needs of the government (i.e., Management Control Systems).

Firstly, most informants considered that even though administrators had a stronger role than ever in the institution, they had to work closely with academics and staff to make things work. As such, informants expressed the need for distributed leadership, highlighting the fact that executive leaders were not sole leaders in the institution. There was a strong emphasis on distributed leadership for diverse organizational units and teams, reflecting the higher education matrix structure of shared governance. However, some informants also drew attention on the “devious” nature of distributed leadership in their institution. These themes were expressed by informants the following way:

- *“Effective executive leadership needs to be distributed... When one person gets hit by a bus then the organization falls, whereas if they are consulted, others buy into the strategy because of that and they can do the job without the leader. For me, as a President, it is related to distributed and academic leadership.”*
- *“Yeah, I think the whole point, that’s the way it worked from my 2 different experiences I had in managing education. It was an academic leadership, but it was a shared perspective, I mean, you had the academic department, the finance, department, IT, the staff, I mean, everybody understood academics were essential. (...) because you need to make sure the core product and the way you deliver the product is 200% and so they need to be involved.”*
- *“If you take someone from the corporate environment that has nothing to do with post-secondary education, and you think that person’s success is going to do the same in the post-secondary institution, it can be risky, it depends on the personality of the person to be honest... (...) I was eager to learn about post-secondary education for a more distributed approach.”*
- *“The institution that I was part of, the notion of distributed leadership was a façade. They would talk about distributed leadership in meetings, but ultimately the real knowledge, decision making came from one or two individuals at the top of course.”*
- *“Yes, but I think the problem beyond that consultation is from that point forward. Senior management kind of retreated into their little cocoon and, uuuh, the transparency vanished like, uuuh, people were involved in developing the documents*

but from that point forward they won't, and the final product just followed what people at the top always wanted to have.“

Secondly, informants associated executive leaders' priorities to the need to implement government driven reforms and community driven actions (i.e., Management Control Systems). Serving the government and the community did appear to be in the front mind of most informants when describing executive leadership in the higher education industry. Most informants mentioned that this may have reflected the fact that the industry went through significant internal and external changes, and that as commissioned institutions, they were given responsibility for implementing government's policies for the benefit of the community. The discourse of most informants expressed aspects of servant leadership highlighting that executive leaders had to be accountable to the tax payers and the community. However, the fact that higher education institutions were trying to have a more accountable approach to education was not necessarily translating into strategic alignment at the level of the enacted strategy as opposed to the stated strategy. In fact, it appeared that for most informants, the approach was more focusing on “devious compliance” than on “actual compliance”. These themes were expressed by informants the following way:

- *“Once again the government asks us to serve the community. So, academic standards are a means rather than an end. You need to run a business for it to work..”*
- *“You can take the example of XXX, who are specifically choosing high profile former politicians as leaders in order to serve the government (...).”*
- *“People need to understand that they are here for the xxx not for their own turf... They are there to serve the people and the community, not their turf...”*
- *“Orientation to the needs of the business community... It is not only about what the provincial government wants anymore, but also about what the people around need, the community, as that is where the donors money is....”*
- *“Yeah I mean it's always a speech, I know what we need to do, because we need to serve better the community, but really, if you want to serve the community, maybe you should share the power with the people who really matter outside the institution.”*
- *“Most vision and mission statements for institutions around the country are awfully vague, they are all kinds of things, and they really don't give you any strategic direction at all... They say that they serve the government and the community ... And in fact increasingly strategic plans don't give you any direction. The people who*

wrote the plan don't put their actual thoughts on paper because it causes too much trouble... They just say that they serve, serve, and serve."

Thirdly, informants expressed that academic leadership was disappearing, since the perspective was increasingly to focus on organizational performance (i.e., Management Control Systems). It was noted that higher education institutions had a tradition of having strong administrators and that the influence of non-academic staff became increasingly important, as decisions needed to be taken within a quicker cycle of accountability. The majority of informants agreed that most decisions were taken at a central level by a non-academic management team. This idea was formulated the following way:

- *"I think we certainly had examples of leaders, academic leaders, who had gone through the ranks, uuur, but more recently I would say less academic leadership."*
- *"People needed to build on quite an old system of pedigree.... We needed to pay attention to pedigree and experience BUT in any role like leadership, it's about the relationship that you have with people... If you don't have a good relationship with me, the President, then you can't tell me something that is wrong... So it is less academia and more other managerial skills that we were looking for."*
- *"When you are putting this research in context... We are not always able to be as effective in promoting the academics because of lack of business experience and an environment that pushes us to respond retroactively to the changes in funding... As a result on both academic and service side, there is a need for more experience in for-profit and non-profit, the challenges of responding to low level of resources. Academics are in many fields but may not have had recent practical experience... So one competency is to know finance and relationships building with business owners and business officials. Having the network to leverage those relationships. We have strong advisory councils... They can provide insights and guidance but their passion isn't about the business aspects.... Faculty is here to teach... It is a choice... Being an academic or not....."*
- *"No questions, recruitment of executive leadership has changed, uuuh, in the last 5 years alone, we have seen a tendency for every University Presidents from having a PhD and having an academic researcher profile to increasingly being selected not having a PhD."*

- *“The current President I don’t think was ever a Professor, he was never Dean... He was a Vice President of students services for a certain time, and mainly his experience was being a manager of a remote branch campus.”*
- *“When I was in the industry, my role was quite corporate... I was recruited by a guy that was a friend of mine.... They wanted someone with business experience; I was in the provincial government too... Some aspects could be more corporate like the operating side (I was a President-CEO)... Working in an academic institution is a very special experience with faculty.... So, it was a challenge and with faculty I was never using my CEO title. As a statement of respect for faculty.... Just with the industry when I went to see the CEO of XXX in order to be at the same level as him... I was a CEO.”*
- *“In my provincial government days, I was the stupidest guy around... In government, I needed to learn how to read a balance sheet. I took some courses, so I learnt and could understand the difference between capital and operating money... Read financial statements, revenues, expenditure... You never know enough as a leader! Knowing how to read a balance sheet helped me become the President. Would you believe it?!”*
- *“In terms of the recruitment of that type of positions, it is more a focus on leadership, entrepreneurial spirit and business acumen, business strategy than anything related to knowledge of the education business.”*

4.1.2.3 Organizational Performance

Higher education Institutions were held accountable by the government (i.e., Management Control Systems). The pressure for accountability was at the basis of the theme of organizational performance, with a tendency to report “self-serving” indicators because of a lack of proper definition of what constitutes performance in the higher education industry. This lack of proper definition of what constitutes performance in the higher education industry resulted from the lack of consultation of higher education institutions by the government when setting up Management Control Systems.

Organizational performance was related to themes including the themes of inputs, process and outputs. The pressures for accountability and the lack of proper definition with associated self-serving reporting practises and a lack of consultation of executive leaders

(i.e., one-way communication process from the government to the institutions) were described by informants the following way:

- *“5 years ago, the government to make us accountable, they made the campus Alberta: the 6 sector model. Mandates of Institutions were defined by whatever category they were in... With the research institutions, the baccalaureate institutions, the polytechnics, the special purposes and independent academic institution (or faith based institutions) and comprehensive community colleges...”*
- *“Accountability.... Conversation about that is a big factor... If you are spending millions or billions then there is going to be some way to account if you are getting your money back.... There was recognition that some institutions were more efficient in turning out a good product without having their hands out asking for more money.... It was alternative sources of funding but really showing accountability with the dollars they had.”*
- *“We were much more accountable for the use of unattached envelopes, so we were funded on the basis of how many FTEs we were expecting to generate and if we fell below that target we had to justify it, and if we couldn’t justify it to the satisfaction of the government, they were getting to the point where they would pull funding back....“*
- *“We need to recognize that to maximize the value of education; we need to do that in a way that is efficient and effective without losing our ideals. So that we can be proud and fulfilled in education.“*
- *“I was growing up, first a dean and then VP, and then President at XXX.... There were several things that happened under the realm of accountability. It was king of a buzz word... Nothing else.”*
- *“I think efficiency is essential but if it is all you are doing it is not working... You need to evaluate the way it helps students... Not just the way it helps you look good for the government.”*
- *“They were collecting all these numbers, but what I learnt is that not everything you can measure is important and not everything that is important can be measured.”*
- *“There is that obsession with accountability and all the jargon stuff but they don’t know how to measure productivity... government reacts to polls so their strategy reflects the latest poll and evolves! And accountability is important for them but they don’t have a good model to measure it... So, we did it every year in terms of what measures are and that made strategic planning more difficult.... What the outputs are*

and who is accountable is important but provincial government focused more on input measures (like students, courses taught, hours per week of work) instead of the outputs measures (what type of students do we have once they graduated). Bureaucrats do not consult institutions... So, it is not clear and makes a fair bit of chaos in higher education in Alberta and in the country. People just report whatever shows best. And it doesn't really mean anything."

- *"The community wanted a business degree, so we started the process with the quality council and we went through the process and submitted... I remember like it was yesterday.... And then the Boards, Chairs, and Presidents were there and then the Minister announced that 6 sector model.... Our institution would NOT move to have their own degrees!!? So it was confusing... And we had to lobby the Minister and our MLAs to open the door despite our mandate..... From a strategic and leadership perspective, people were really upset (Business people in the community would mail the Ministry)... That kind of last minute changes continue to go on! And we can't really say anything to the government."*
- *When I was a president, xxx was new president; they were meeting with people from Universities... I sat between the Provosts and President of xxx and the big institutions believed that the purpose of the Ministry was to do what they told them to do... But the Minister said: "I write the cheque I decide what you do..." And they all sat quietly, because they were shocked!"*
- *"It was very top down and given by the government or the Board of Directors... Some parts were more consultative, but the provincial government said "Here is the mandate, just follow it..."*

4.1.2.3.1 Professional Accountability: Effectiveness

Organizational performance indicators used in the higher education industry were first based on a mechanism of professional accountability (i.e., Management Control System). Professional accountability was related to business type indicators (i.e., Management Control System). Informants summarized the theme of professional accountability (i.e., effectiveness) the following way:

- *"The provincial government has expectations and we have to report back on an annual basis... That is where the KPI and balanced scorecards are being used with measures like increased enrolments... It's like a sales projection... The FTEs are*

translated into bumps in seats. So the provincial government sets up.... Uuurr... Its own goals, the post-secondary reviews the goal, the post-secondary plans, and that within the framework... They determine what their own strategic focus will be... For example.... Rrr... We had to partner with other institutions to put the action plan in place... That was a good measure of effectiveness.”

- *“FTEs, Students satisfaction, revenue generator numbers, enrolment numbers... Some institutions had critical mass so they were more effective and showed better but as a result there was some competition for accountability measures...”*
- *“The president needs to be measured in terms of student numbers, students hires, students have job, so you help the community and the Province. The number of partnerships they can garner in the community and amount of money they raise and leverage funds (if you raise 2 million, we give you 6 millions).”*
- *“Effectiveness was what we measured through feedbacks and enrolments... Also it had to satisfy the policy makers and we had to satisfy the tertiary education that the financial outcome was consistent with the programs.”*
- *“Of course, there were some downturns, but organizational performance in my mind by the fact that I had happy staff, happy students and a happy community.... You can feel that you are doing things for the good of students and the community.... I am a firm believer that output and outcomes are helpful... Who walks out the door after you are finished with them? As a future citizen... Not the buildings, the money or the number of staff... This are just tools.... The performance is all about the students, stupid! When your program is more important than your students, then you are not performing....”*

4.1.2.3.2 Managerial Accountability: Efficiency

Organizational performance indicators used in the higher education industry were also based on a mechanism of financial accountability (i.e., Management Control System). Informants agreed that the recent collapse of both international and domestic financial systems did put higher education institutions under the same pressures as any large corporate organisation and summarized the theme of managerial accountability (i.e., efficiency) the following way:

- *“Efficiency was the grant per FTEs, the other one is all the operating cost as a portion of the overall cost.”*

- *“From the internal point of view, we had a series of financial measures related to efficiency for example the cost per FTEs.”*
- *“The institution.... Its sustainability with sound financial decisions... Yes, the institution was very healthy respect to funding. At least that is what they were trying hard to show... They know what they can get or not... They know they can’t do anything... It’s a waiting game to know what the \$ is going to be... Institutions are not able to have a deficit... You can borrow money with permission. But we had a very conservative CFO and good leaders that make others understand they need to be efficient...”*
- *“I can remember the year I was given that particular position I was told: go and find out how much money can you make in the situation I was in. And, then I looked at everything, and I looked very very hard and I came back with the big number of \$50,000. I think I can make \$50,000 this year in addition for paying for all the liabilities, this year nothing can be from the institution, so you have to pay for your computers, for your labour, you pay for everything and then on top of that, I was making another \$50,000. (...) So, my President came back and says, no, I need to look a little harder and give him a larger number... So, I went back and looked a little harder, I have only been in the position for a few months, I thought maybe \$53,000 and it wasn’t much different... Right? And he said no that won’t work and I said: well, why don’t you pick the number you want and when I don’t make it, you can blame me for it. The whole goal was to make the money. (..) I was up to 72 international students in the non-credit world and you figure each student pays \$800 a month, uhh, that’s just for 4 weeks of school, then they also pay \$600 a month for room and Board, then they also shop and travel, so it was bringing in about 1.8 million dollars into the community, even if it didn’t bring the money into the institution although I did that too.”*

4.1.3 Human Resources

The third research question was whether and how the strategic stance of the higher education institutions in Western Canada, executive leadership and organizational performance were strategically aligned with a mediating role played by Human Resources.

The third core theme identified as a result of the Grounded Theory analytical process described and explained strategy, executive leadership and organizational performance with no mediating role played by Human Resources.

The subordinate themes identified as a result of the Grounded Theory analysis process were: (i) strategic alignment of recruitment; (ii) strategic alignment of development; and (iii) strategic Human Resources.

4.1.3.1 Recruitment

The recruitment of executive leaders was not a task for the Human Resources department as reported by most informants. On the contrary, the task was managed by the Board of Governors and an external recruitment agency. In some cases, recruitment was even done in a very informal way. This was expressed the following way by informants:

- *“My experience was that it could be very varied.... HR is enrolled in the process but it is an executive search firm that does the search and HR just gives a description of what is needed, the values of the organization for them to find a fit HR is just on the search committee but the Board takes all the decisions...”*
- *“The Board of Governors uses an external agency to find appropriate candidates and doing some research on the candidate and then present a smaller number... This way there is no conflict if HR is not in favour of that candidate and then reports to the selected candidate that is now the President.”*
- *“We followed the traditional way, I mean, posts and ad in the newspapers mostly, on Workopolis or Monsters (...) but for the recruitment, I mean, process (...), it was way more like, urrrr, unofficial approach (...)... HR says we should follow more process and the job posting and I said: yeah but I won't be getting the best people (...)... I made sure I contacted people myself in the other institutions like a head hunter to make sure that they come in and worked for me. Without HR of course.... ”*

4.1.3.2 Development

Most informants reported that with changes in the industry, acculturation of executive leaders appeared to be important. One possible source of acculturation was the development of leadership through leadership development programs.

Firstly, the most extensive sources of executive leadership development were not designed by the Human Resources department. Human Resources were involved in the leadership development programs of lower management levels, but they were not involved for programs offered at the executive level. Also, informants had experienced these programs, but perceived them as too general in content. Informants expressed this reality the following way:

- *“They were always trying to make sure we had some team building activities experiences, urrr, where we can go to a retreat and we are coming about, urrr, speakers with conflict management, really it was more like executive leadership seminars, we hired like a couple of teachers and instructors, urrr, from different Universities, our speakers were coming to the retreat and make simulation, you know like the teams building, where you do different simulations or stuff like playing guitar to create some bonds between your different leaders”.*
- *“We had some kind of leadership retreat, you know, it was some kind of fluffy thing, with no real concrete outcomes “*
- *“Ohhhh.... Uuuh, yeasssss, HR (laugh) makes me mad every time I think about it, I think the executive leadership teachers all got the idea that they needed a leadership course for everybody that wants to be in leadership, so that includes anybody that has been in leadership for years and years and years... (...) So, they put it on NPC and some yahoo from Saskatchewan decides to fill in the application and offer his leadership courses, and so they are all roughed in.... (...) I sat down for the 1st course and I wrote 4 pages about everything that he did wrong... (laugh). I was pissed off, I’ve never been so mad!! (laugh)”*

Secondly, alternative sources of leadership development were described as more effective like peer-support and mentoring by past executive leaders:

- *“There are some retreats for all new Presidents or corporate service leadership development, in which they bring together new leaders or aspiring leaders and talk about the difficulties of administrating Colleges and Universities. Being with people like you really helps even if at the end of the day you compete against each other. ”*
- *“When you have the chance to work in an organization where leaders really empower you and make you accountable, they make sure you have the right tools for you to perform, it’s (laugh) a whole different experience and, I mean, you need to make your*

own mistakes but at some point that's the experience you needed to have. So mentorship was very important to learn and develop."

- *"Anything related to organizational understanding and behaviour and relationship building was very important at a higher level. As a President, I am a big believer in mentorship of your team for them to grow..."*

4.1.3.3 Strategic Human Resources

Human Resources were not regarded as a strategic partner. On the contrary, Human Resources were regarded as "paper-pushers" limited to payroll, benefits, policies and procedures. Informants summarised this theme the following way:

- *"Yes and no, sometimes they were very strategic but most of the time they were just focused on compliance aspects, day to day operations, check boxes, and this is very different from strategic HR that is applied to the performance of the institution... I think it is the way HR is set up... HR in a University is more like HR in the government they are administrative and compliance, record keeper, intellectual property...."*
- *"For an academic institution, it is extremely fascinating that the HR department is not involved in the selection and recruitment of academics and executives, so the only involvement of the HR department is administrative where the department writes the job description, the personnel department places the ad, collects the resumes, send it back to the people and that's their only involvement."*
- *"HR has become a pain... They were the most backward department. They focused on process and old culture. For example, on the recruitment of new faculty, changes had to be done... We needed samples of publications. We wanted to get that electronically, but HR would insist to print everything. So we had 60 applications per position and 8 positions... They wanted to print everything... All publications... For every member of the hiring committee!! Crazy!"*
- *"When we sent something to HR, and my secretary was doing all the job, we had to redo the job description and then it had to go to something-something classification committee, where HR has got her buddies on, if you like, (...) and that this will then come back and say no we need to do this and this and they will then come back and change the job description (...) and that would go on for months, and months, and months and then we couldn't recruit anyone !!"*

- *“Up to recently we couldn’t post a job anywhere else than on the website of our University because HR refused to adapt... Now we can publish in conference websites.”*

It was important to note, however, that when Human Resources were perceived as a strategic partner, two conditions were fulfilled:

Business Structure (i.e., Direct Reporting to the President)

- *“We do have the possibility to present to the Board our programs for alignment, we report to the President. This position has reported to the President for the last 10 years... In higher education, when I did a survey 3 years ago, half had reporting to a VP on the services side and half reported directly... Increasingly HR are reporting directly to be more strategic.”*
- *“They were 2 men and really the HR, I think, he was kind the servant of the President, and he tried to keep a balance also with the faculty because we were in the renewal of the collective agreement, so I mean, yeah, the HR was really really near to the President...”*

Resources (i.e., Dissociate Transactional from Strategic Positions)

- *“For development, in the last 2 years we had been focusing on more resources in order to find a person that focuses on training and leaves the VPHR with the strategic direction of the department. That was linked to a performance management system with the identification of competencies and the tracking of how well admin is doing on these indicators.... It has been also on identifying the road blocks from the collective agreement in order to make a bargaining intent to remove them.”*

4.1.4 Informal Interviews

Informal interviews were designed to add meaning to the data collected in the semi-structured interviews study by exploring what informants thought of the preliminary findings.

Firstly, all informants confirmed that they were not surprised by the findings in terms of interrelationships between changes in the external and internal strategic environment of

the higher education industry, strategy, executive leadership, organizational performance and the role played by Management Control Systems and Human Resources.

Secondly, some comments were added by informants as a way to express their support to the descriptions and explanations of the core themes, subordinate themes and their interrelationships.

The findings for changes in the external and internal strategic environment of the higher education industry, most of all in terms of governmental rules, were confirmed by informants with some added comments:

- *“I would say definitely... Now we have a 3 years cycle for funding... This may change every year. They didn’t confirm it... Their planning cycle is too short so all react and everything changes at the last minute.”*
- *“Yes... Because of problems with funding.... At the more senior level the President is perceived to have a significant fundraising role but also a significant academic leadership role, so when they are recruiting, they are looking for someone that has a very high academic reputation but also has the capacity to go out and do all the things that are necessary for fundraising. This had an impact on the culture for sure...”*

The findings for the alignment of the strategic stance, executive leadership and organizational performance with a mediating role of Management Control Systems and the associated “devious compliance” were confirmed by informants with some added comments:

Strategic Alignment

- *“Yes the termination rate is very high; this is a very disturbing environment right now.... Maybe I should retire early.”*
- *“I agree... I would say that the collective agreement is the main road block to the alignment of the organization at all level... In terms of our organization the collective agreement really pushes against any changes to anything to be implemented... Like for example just a stupid thing like the workload and the numbers of hours or when professors are supposed to teach or it is overtime.... All that doesn’t fit a more managerial approach to education despite the fact that the strategy requires it... So the link with organizational performance of the President is weakened.”*

Devious Compliance

- *“Yes, totally.... I would say that there were a lot of resources at the leadership level put in strategic plan, there were a number of written documented, strategic plans, that were written in reality with not a lot of input by people below the executive level and that the strategic plans were meant more for public consumption than for providing guidance or directions to people within the organization. The reporting process to the government was just a show really!!”*

The findings for the lack of alignment of the strategic stance, executive leadership and organizational performance with a mediating role of Human Resources were confirmed by informants with one added comment:

- *“Unfortunately... There is no surprise... I think that HR is more transactional but needs to be more reactive and flexible to changes... The same as all new recruit need to be more flexible to changes... We can't run the business of education like mum and pop anymore... For the vision to be applied, we need all strats of the organization to be in line. HR should help for that.”*

The findings led to the informants suggesting some recommendations for policy makers, executive leaders and Human Resources practitioners:

Management Control Systems

- *“The government shouldn't be afraid to push the boundaries for fear of political or economic backlash... I guess what I would react to is that... I don't think people really want more money in healthcare and less in education and that is the reason why politicians want to give less to education... With my experience, I believe it is more that people want more for healthcare AND for education, but the government says: We don't have enough money, so it will be less for education and more for healthcare. government should ask people.”*
- *“We are a business now and we have a CEO at the top... This is a business terminology and we make decisions based on the \$ amounts. I think it is wrong as education should be worth something.... Our degree should be worth something and we should not become some kind of cheap training institutions that do anything that the business environment asks us to do as anyway we are to slow to react to the business environment...”*

- *“Policy makers need to be sure that where ever you educate people you can get a job... But... In fact, I would add to these results that It looks like we are going to become for-profit like for roads and for the society... This may be a model but when industry needs people with a profile and needs us to train people, that also means that we need to find people who are in demand to train them... So, we have no choice... We can't be for-profit to help our community... As we can't find people to train people when those people are in demand. We can't offer the salaries.”*
- *“I think with the institution and the government, there should be lots of feedback ... That is why I think these Presidents should meet with those MLAs or talk to the Minister of Education because bureaucrats don't want you to talk to the Minister because they want to be in control.... So lobbying... It is not necessarily lobbying.... But it is important where the institutions are having problems with the bureaucrats cause the bureaucrats are going to tell me... Yes minster, it is exactly what it is..... Presidents almost have to ask for a meeting once in a while... They had meetings only twice a year when I was a MLA. They need to talk to the Minister instead.”*

Human Resources

- *“One thing that I would like to see is more opportunity for faculty and staff to consider support roles and to consider moving to HR because HR needs to understand the business and the common purposes... If not, they don't understand the type of profession in their organization... It is not about doing someone else job but how it fits in the organization... If not, we are just transactional because we don't add any value if we don't know what people are doing.”*
- *“Yes and I think the link of HR to the bottom line is very important as this is the only thing that people really care about... Some of the most successful organizations are the top 50 employers to work for.... Because they increase staff engagement and reduce the cost of turnover, recruitment and development of new people... We do look at reports and matrixes to demonstrate the value of HR but we could do better to prove that we have a stiff impact on the bottom line.”*

As a summary, informal interviews were used as a way to give a voice to any concerns in terms of ontological and educative authenticity of interpretations of the findings by the researcher. Informal interviews also added meaning to the data already collected by

exploring what informants thought of the preliminary findings and related practical recommendations.

4.1.5 Summary

4.1.5.1 Proposition 1: Higher Education Industry

The semi-structured interviews study showed that there was a functional interrelationship between the strategic stance of higher education institutions in Western Canada and changes in terms of governmental rules, competitive markets and organizational culture (i.e., external and internal strategic analysis).

The changes in governmental rules related to political parties in power and associated changes in Roles & Mandates had an impact on the way higher education had to focus on the market environment and changes in terms of organisational culture. The changes in the market environment were related to competition between institutions as well as students' and employers' demands. The changes in organizational culture were related to a culture shift that resulted in a more managerial and entrepreneurial culture.

4.1.5.2 Proposition 2: Management Control Systems

The semi-structured interviews study showed that there was a functional interrelationship between the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Management Control Systems. Strategic alignment could not be described and explained as impacting strategic stance, executive leadership and organizational performance with multiple feedback loops. Strategic management by executive leaders could not be described and explained as impacting organizational performance.

The strategic stance of higher education institutions was shown to reflect changes in Roles & Mandates (i.e., Management Control Systems) and there was a strategic alignment of executive leaders as opposed to faculty and staff. Changes in strategic stance were shown to impact the governance structure (i.e., Management Control Systems) and the executive leadership profile within the higher education institutions.

Indeed, members on the Board of Governors were mainly appointed by the government, and even if the governance structure was still largely profiled as shared governance, executive leaders' profiles were described as less distributed, less academic, with a growing focus on entrepreneurial and managerial skills. Changes in strategic stance were also shown to be related to an increased pressure for accountability in terms of effectiveness and efficiency (i.e., Management Control Systems). Importantly, however, a profile of "devious compliance" was highlighted in the higher education industry with a divergence between what executive leaders reported and what actually happened inside the institution (i.e., enacted strategy as opposed to stated strategy).

4.1.5.3 *Proposition 3: Human Resources*

The semi-structured interviews study showed that there was a functional interrelationship between the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance (i.e., strategic alignment) with no mediating role played by Human Resources.

Human Resources were not involved in the recruitment and development of executive leaders or any strategic matter, because of the potential for conflict of interest. However, this lack of interrelationship varied as a function of the reporting level of Human Resources to the President and the resources allocated to the Human Resources department.

4.1.5.4 *Informal Interviews*

The informal interviews confirmed interpretations in terms of the external and internal strategic analysis and in terms of the functional interrelationships between the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Management Control Systems and no mediating role played by Human Resources.

4.2 Findings of the Institutional Documents Study

The institutional documents study sought to establish whether the findings from the semi-structured interviews study were generalizable to the population of higher education institutions in Western Canada.

The research questions are: (i) whether and how changes in the external and internal strategic environment of the higher education industry can be described and explained in terms of changes in governmental rules, competitive markets and organizational culture; (ii) whether and how the strategic stance of higher education institutions, executive leadership and organizational performance are strategically aligned with a mediating role played by Management Control Systems; and (iii) whether and how the strategic stance of the higher education institutions, executive leadership and organizational performance are strategically aligned with a mediating role played by Human Resources.

The purpose of this section is to provide a summary of the findings of the institutional documents study. As the data collection and analysis progressed, core themes were identified from the data analysis that acted to form an enhanced contingency theoretical framework of changes in the higher education industry, strategy, executive leadership, organizational performance, Management Control Systems and Human Resources (i.e., see Appendix U).

The core themes extracted from the institutional documents were: (i) the institutional description and explanation of the external and internal strategic environment of the higher education industry in terms of governmental rules, competitive markets and organizational culture; (ii) the institutional description and explanation of strategy, executive leadership and organizational performance with a mediating role of Management Control Systems; and (iii) the institutional description and explanation of strategy, executive leadership and organizational performance with no mediating role of Human Resources.

Please note that in the institutional documents, the descriptions and explanations were considered to be related to the institutions. As such, the focus of the institutional documents was situated at the institutional level despite the fact that raw data were

presented to support the credibility of the Grounded Theory analysis (Suddaby, 2006, pp.633-642).

4.2.1 Higher Education Industry

The first research question was whether and how changes in the higher education industry in Western Canada had been observed in terms of governmental rules, competitive markets and organizational culture.

The first core theme identified as a result of the Grounded Theory analytical process captured the descriptions and explanations related to the whether and how the environment of the higher education industry had been changing.

The subordinate themes identified as a result of the Grounded Theory analytical process were: (i) governmental rules; (ii) competitive markets; and (iii) organizational culture.

4.2.1.1 Governmental Rules

The theme of governmental rules was related to the themes of stewardship and accountability. Indeed, a growing concern had been for higher education institutions to serve their community (i.e., stewardship) and demonstrate accountability (i.e., responsible management). These themes of stewardship and accountability were omnipresent in institutional documents and expressed by institutions in the following way:

Stewardship

- *“The University of Calgary is a place of education and scholarly inquiry. Its mission is to seek truth and disseminate knowledge. Our aim is to pursue this mission with integrity for the benefit of the people of Alberta, Canada and the world.”*
- *“Athabasca University, Canada’s Open University, is dedicated to the removal of barriers that restrict access to and success in University-level study and to increasing equality of educational opportunity for adult learners worldwide. We are committed to excellence in teaching, research and scholarship and to being of service to the general public.”*

- *“We strive to deliver the best education possible and create an environment where excellence is expected. The learners we serve will have a foundation of knowledge and skills that prepare them for successful careers and successful lives.”*
- *“Portage College provides education, training and services to facilitate learning and development of knowledgeable, serve skilled citizens in a caring, supportive and dynamic College environment.”*
- *“Vancouver Community College serves a diverse urban community by providing excellent programs and services that prepare learners for on-going education, direct entry into employment, career advancement and greater participation in the community.”*
- *“Nicola Valley Institute of Technology: A comprehensive public post-secondary institute, governed by the Aboriginal community, leads by anticipating and responding to the educational needs of our learners by providing support, choices, knowledge and tools to build a better future.”*
- *“The mission of BCIT is to serve the success of learners and employers: by providing high quality technical and professional education and training that supports our graduates as practitioners and as citizens; and by advancing the state-of-practice.”*

Accountability

- *“Our values: Accountability/Transparency/Integrity, Respect, Human Development, Accessibility, Excellence.”*
- *“To be an accountable, progressive institution, academic centres of excellence, increased continuing education offerings, increase in applied research activity, steward the creation of institutional agility and embody dedication towards environmental, social, learning and economic sustainability.”*
- *“By legislation, the UBC Board of Governors is responsible for the management, administration and control of the property, revenue, business and affairs of the University at both campuses. Public trust is implicit in the relationships the University maintains with the students, alumni, faculty and staff for whom it exists, the broader community that it serves (including residents), and the organizations, governments and individuals who support UBC. Responsible governance and accountability for public resources are key components of that public trust relationship.”*

4.2.1.2 *Competitive Markets*

The theme of competitive markets was related to the themes of growth management, students' and employers' demands and alternative learning models. Presidents' and/or the Chairs of Board of Governors' messages expressed that institutions were mandated to have a local, national and/or international approach to their growth and to focus on the needs of the students in an enlarged community (e.g., international students). Institutional documents focused on alternative learning models as a way to adapt to changes in competitive markets (e.g., need for an online and blended learning model to access international students). This demonstrated a focus on the market environment and was stated the following way in institutional documents:

Growth Management

- *“We consult with non-profit organizations on how we can provide support and guidance on social issues. We meet with the communities that surround our campus to talk about growth issues and other areas of mutual concern. Every faculty has a community advisory group that adds insight into our long-term planning.”*
- *“Over the last decade, Athabasca University has pursued a path of growth, and has seen its budget burgeon to \$60 million. Enrolment has exploded, with the student body growing from roughly 9,000 individuals to over 26,000. We fully expect to see our student numbers continue to grow dramatically in coming years.”*
- *“Given the changes in the external environment and the successes we have achieved, the plan indicates that we must build on our strengths as a destination University and focus on the quality of the broader learning environment for our students, faculty and staff. In the ever more competitive environment and with growing fiscal constraints, there will be a need for greater flexibility and optimization of resources as well as renewed emphasis on engaging our community, locally, nationally and internationally.”*

Students' and Employers' Demands (e.g., International Students)

- *“Athabasca University is standing at the threshold of its potential, not just in terms of its provincial mandate, but also in terms of its national and international mandate.”*
- *“Thompson Rivers University embraces internationalization in every aspect of campus life because having a diverse University community helps us learn how to approach the world's complex problems. It is also more fun to have lots of international students.”*

- *“It was this commitment to global citizenship, and openness to new ways of thinking, that first drew me to UBC. It is an attitude that has made our University one of the world’s best in both pure research and in moving discoveries to the marketplace.”*
- *“On behalf of my colleagues, local, provincial, national and international stages, learning, discovery and citizenship, world-class talent, top infrastructure, partners from government, business, community agencies and individuals, Province’s and its citizens prosperity, health, and quality of life.”*
- *“As the largest of BC’s new teaching-focused Universities and the only polytechnic University in Canada, we provide a unique array of programs and services that link students to their careers, their communities, and to their lives beyond the classroom. While serving primarily students in the Metro Vancouver regions south of the Fraser River, we also attract students from all over BC, Canada, and around the world.”*

Alternative Learning Models

- *“Thompson Rivers University is a leader in open, distance and online education to support the needs of our learners and community.”*
- *“The programs offered at Royal Roads University provide our learners with the tools and techniques required to be effective after graduation. Whether you’re looking for a new career or want to improve your standing, financially and professionally, within your current organization, our blended learning model of online courses and intensive, on-campus residencies lets you use what you learn, today.”*
- *“Our online learning model allows you to continue working while you complete your degree. The program begins with a short, on-campus residency that allows you to meet the rest of the learners in your cohort, followed by distance courses that deliver the theoretical and information-based material in the program. Moodle, the platform used for online learning, facilitates the delivery of learning materials while providing you with the ability to interact and engage with fellow students and professors.”*

4.2.1.3 Organizational Culture

The theme of organizational culture was associated to the idea that higher education institutions had been through a paradigm shift that made them less focused on an “ivory tower” culture and more focused on being dedicated to students’ success and innovation. This was expressed the following way:

- *“Kwantlen Polytechnic University is no ”ivory tower”. It is open, innovative and inspiring. It proudly and tirelessly strives to do the best for its students, alumni, employees, donors, business and industry partners, and our local and global communities.”*
- *“Our employees are committed to ensuring students are supported, engaged and encouraged to excel in whatever they choose to do. Students are, and always will be, our number one priority. I will continue to support innovation that contributes to providing the highest quality of learning, research and self-discovery available.”*
- *“For more than 40 years, Camosun has built a strong and well-deserved reputation for innovation, our focus on our students, our quality programming, our highly professional faculty and staff, and our accessibility and community-mindedness.”*
- *“Whatever your aim, our staff and faculty are dedicated to your success. Our advantages are many: small class sizes that enable ample professor-student interaction, regional campuses in your home communities, accessible admission requirements, affordable tuition, a generous financial aid program, our student success centres and our many programs that will prepare you for real careers. These all reflect our commitment to help you achieve your educational goals in an innovative setting.”*

4.2.2 Management Control Systems

The second research question was whether and how the strategic stance of the higher education institutions in Western Canada, executive leadership and organizational performance were aligned with a mediating role played by Management Control Systems.

The second core theme identified as a result of the Grounded Theory analytical process, described and explained strategy, executive leadership and organizational performance with a mediating role played by Management Control Systems.

The subordinate themes identified as result of the Grounded Theory analytical process were: (i) strategy; (ii) executive leadership; and (iii) organizational performance with a focus on the notion of compliance to the Management Control Systems set-up by the government.

4.2.2.1 Strategy

In terms of strategy, higher education institutions focused on students' success and students' contributions within local, national and/or international communities. In that sense, most institutions "strived" to exemplify their Roles & Mandates, through teaching, learning, scholarship, research and/or service. Higher education institutions were strategically aligned with the Roles & Mandates assigned by the governments. Because of their Roles & Mandates, higher education institutions emphasized a learner-centred approach in the provision of their programs, research and services. The reasons for this apparent alignment with the Roles & Mandates assigned by the governments were that these institutions were publicly funded and board-governed (i.e., a majority of the board members were appointed by the government). As a consequence, institutions had no other choice but to follow the Roles & Mandates from the government as tightly as possible to demonstrate compliance.

Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions

Roles & Mandate: Comprehensive baccalaureate & graduate programs, comprehensive research function, learners interested in a comprehensive, research intensive environment.

- *"Within a vibrant and supportive learning environment, the University of Alberta discovers, disseminates, and applies new knowledge through teaching and learning, comprehensive research and creative activity, community involvement, and partnerships. The University of Alberta gives a national and international voice to innovation in our Province, taking a lead role in placing Canada at the global forefront for research."*
- *"The mission of the University of British Columbia, as articulated in its strategic plan Trek 2010 – A Vision for the 21st Century, includes the commitment that it will "create new comprehensive knowledge, prepare its students for fulfilling careers, and improve the quality of life through leading edge research." It also includes the requirement that its graduates "will have developed strong analytical, problem*

solving and critical thinking abilities; will have excellent research and communication skills; and will be knowledgeable, flexible and innovative.”

- *“The University of the Fraser Valley, as established by the University Act of British Columbia, is mandated to serve the post-secondary educational needs of its region. Specifically, UFV provides post-secondary academic (...) degrees, at both the undergraduate and master’s level. Faculty and staff are also engaged in foundational and applied research and other scholarly activities that support its program areas and the development of the Fraser Valley.”*

Specialized art and Culture Institutions and Polytechnical Institutions

Roles & Mandate: Apprenticeship, certificate, & diploma programs for technical vocations, some applied & baccalaureate degrees in specified areas, applied research and scholarly activity, learners interested in career & technical programming

- *“NAIT’s vision is to be globally valued for student success in technical areas, applied research, and innovation. Students are successful when they realize their academic, career, and organization.”*
- *“SAIT shall be an innovative organization equipping people to compete successfully in the changing world of work by providing relevant, skill-oriented education.”*

Comprehensive Community Institutions

Roles & Mandate: Certificates & diplomas, adult high school completion, apprenticeship, primarily collaborative baccalaureate programming, applied research and scholarly activity, learners interested in preparatory, career, & academic programming

- *“To be recognized as one of Canada’s finest comprehensive Colleges providing world-class education and training through commitment to excellence and innovation in applied research”.*
- *“We transform lives and communities. As a student of Okanagan College, you will benefit from the comprehensive education and training offered here, and you will also contribute to the transformation of other individuals and the communities where you live, study and work.”*
- *“The College of New Caledonia, as a comprehensive College, provides access to lifelong learning and facilitates the achievement of personal and educational goals. We are responsive to the diverse needs of our students, our employees, and the communities in our region. In the dynamic, consultative environment, we deliver quality programs and promote the success of every student.”*

- *“Langara College provides accessible undergraduate education opportunities that meet the needs of our diverse community. This means the offering of a variety of programs and services focused on University, career, and continuing studies at an undergraduate level.”*

4.2.2.2 Executive Leadership

The theme of executive leadership was associated to the themes of Board of Governors (i.e., Management Control Systems) and executive leaders. Higher education institutions were described as shared governance structures. The two senior governing bodies were the Board of Governors and the Academic Governance Council.

Firstly, the Board of Governors had the senior oversight of the institution (i.e., Management Control Systems).

Secondly, the Academic Governance Council, subject to the authority of the board, was responsible for the academic affairs of the institution that included establishing academic standards, integrity, policies, programs, as well as scholarship, research and creative activities.

Thirdly, although the Board of Governors had the ultimate authority (i.e., Management Control Systems), the Board of Governors and the Academic Governance Council shared the power within the institution.

4.2.2.2.1 Board of Governors

The Board of Governors was described the following way in the annual reports (i.e., Chair of the Board of Governor’s messages):

- *“AU operates with a bicameral governance system. Governing Council members are appointed by the government of Alberta. The Governing Council consists of the chairperson, up to 10 public members, two academic staff members, one tutor, one non-academic staff member, one graduate student, two undergraduate. The academic governance council is elected by Faculties/Schools, with five student members elected*

by the students, seven senior officials (four Deans, the Vice-President Student Services, Vice-President of Finance and Administration, and Chief Librarian), two staff elected by staff members, and an alumna representative.”

- *“By legislation, the UBC Board of Governors is responsible for the management, administration and control of the property, revenue, business and affairs of the University at both campuses. Faculty is responsible for the academic affairs.”*
- *“The overall responsibility for the business of the University (property, revenue and policies) is vested in the Board, whereas the academic council deals with the academic side of the business.”*

4.2.2.2.2 *Executive Leaders*

The Board of Governors delegated most of its responsibilities for the day-to-day operation and administration of the institution to the President of the institution. The President had the responsibility for implementing the policies from the Board of Governors. The selection, evaluation, support and termination of the President was the responsibility of the Board of Governors and the responsibility for the administration of the institution was vested in the President. Once the Board of Governors had delegated the responsibilities and authority to the President, the Board of Governors allowed the President to carry out those responsibilities (i.e., Management Control Systems).

Firstly, leadership in higher education institutions was described as a collective effort (i.e., distributed), in order to promote actions that focused on a shared purpose consistent with the higher education institutions mission/vision. For most higher education institutions, shared governance was a system of governance that depended heavily upon the participation of faculty and established a shared purpose. It also provided an opportunity for citizens to participate in the decision-making. The key principle of shared governance was related to the meaningful involvement of faculty, staff and other stakeholders in deliberations (i.e., distributed leadership). As most institutions stated in their annual reports (i.e., Chair of Board of Governor’s and President’s messages):

- *“NorQuest’s theme of transformation is reflected in the pages of our first Comprehensive Institutional Plan (CIP). Following a review of College plans at various levels, we recognized how all of them could work together to move our Strategic Plan forward. The CIP was conceived in collaboration with our faculty to meet provincial government and community objectives, and is truly aligned with where we are going. To help achieve this bold new vision, NorQuest underwent reorganization in January 2011. The goal of the reorganization is to garner improvements in the delivery of programs and generate efficiencies in how the College operates. This has meant adopting new processes and welcoming new people to fulfil new functions. We are confident the foundational building blocks are in place for NorQuest to move forward.”*
- *“I want to express my appreciation to everyone at MacEwan for your participation in the search process. The insights you shared through the consultation process were invaluable to the Search Committee and the Board of Governors.”*
- *“We value effective communication and collegiality within and among all sectors of the University. We encourage a sense of co-ownership of the institution by all staff and students and recognize a collective responsibility to achieve our goals.”*
- *“Transformation, collaboration with our faculty to meet provincial government and community objectives, truly aligned, reorganization (i.e., improvements in the delivery of programs and generate efficiencies), regional stewardship role”.*
- *“Teaching and learning are central to the academic endeavour, which is informed and enriched by research and scholarly pursuits of highly engaged faculty and staff.”*

Secondly, most Presidents described their institution as focused on serving their community. There was a prevalence of themes related specifically to the notion of stewardship/service (i.e., the notion that the institution was committed to serve the community, a geographic area, the students, the government and the public good). This meant that institutions contributed to the local economy and community:

- *“As part of the College Regional Stewardship mandate and strategy, the College undertook a survey of its southern Alberta constituents to determine needs related to regional adult education and labour market needs.”*
- *“Selkirk College will develop empowered, effective citizens through rewarding educational and life experiences that are built on our Region's distinct identity.”*

- *“NWCC is a recognized leader in Aboriginal education. Aboriginal peoples comprise roughly 30 % of the region’s population, the highest among all BC College regions and, at NWCC. NWCC serves aboriginal people.”*
- *“Medicine Hat College has successfully navigated a year of change as we adapted to the unstable economic environment outside our doors and sought to attain our own goals. Our accomplishments are many, and I believe we can be justifiably proud of living up to our mandate while addressing the conflicting realities of growing demand and diminishing resources. Our most significant success? This past year we served more students than ever while at the same time student satisfaction also reached a new high. Add in a measure of fiscal stability, despite the economic climate, and it is fair to say the Medicine Hat College is performing very well.”*
- *“MacEwan strives to exemplify the values of respect, integrity, citizenship and environmental stewardship through teaching, learning, scholarship, research and service.”*
- *“Implementation of the Regional Stewardship role continues to evolve across Campus Alberta and, as part of the evolution, the Ministry of Enterprise and Advanced Education (AET) altered the Regional Stewardship boundaries of Edmonton and Grande Prairie, Grande Prairie Regional College assumes stewardship of Hinton, Jasper and Edson.”*
- *“As a Comprehensive Community Institution with regional stewardship responsibilities, Red Deer College provides adult learners in the Central Alberta Region with opportunities to attain post-secondary education through its courses, programs, and services.”*
- *“We went to many of our “shareholders” and stakeholders to discuss ways we could be more engaged and effective in our commitment to education, research, and the community we serve.”*
- *“A Social Work professor who volunteers as a magician at local schools and hospitals. A Nursing instructor who helps the homeless. An Open House event (Campus Fair) that welcomes 5,000 people to our campus. A Faculty of Medicine research project that offers new hope in the fight against cancer. A Science Professor who introduces children to the wonders of bats. These are just a few of the many ways the University of Calgary and its faculty and staff give back to the community. Connecting to people and organizations is an important part of what we do, because*

we have a duty to see that people in the community receive a substantial return on the investment they make in their University and in education as a whole.”

- *“Transformation, collaboration with our faculty to meet provincial government and community objectives, truly aligned, reorganization (i.e., improvements in the delivery of programs and generate efficiencies), regional stewardship role.”*

Thirdly, most Presidents were described as having an academic & administrative background and high credentials. However, some Presidents were also presented as CEOs reporting to the Board of Governors with the mission to expand the business of the institution. This terminology showed that Presidents were expected to run the institution like a business and with a managerial and entrepreneurial focus. As some institutions stated in their annual report (i.e., Chair of Board of Governor’s message):

Administrative Background and Credentials

- *“On behalf of the Board of Governors, I am very pleased to announce that Dr. David Atkinson will be joining Grant MacEwan University as its fourth President. David will be joining us. His career in Canada’s post-secondary system has included presidencies with Brock University and Carleton University and he will be leaving his presidency at Kwantlen Polytechnic University in B.C. to join the MacEwan family.”*
- *“The Board of Governors announced the appointment of David Docherty, PhD, as Mount Royal’s ninth President. Dr. Docherty comes to Mount Royal from Wilfrid Laurier University in Waterloo, ON, where he was the Senior Advisor on Multi-Campus Initiatives in the Office of the Vice-President: Academic and Provost. Previously he was Laurier’s Dean of the Faculty of Arts. Dr. Docherty is an accomplished academic, author and administrator. He is a recognized expert on parliamentary democracy in Canada and was instrumental in developing new undergraduate and graduate programs at Laurier.”*
- *“Under the leadership of a new President, Dr. Michael (Mike) Mahon, the University pushed ahead on the vision of our Strategic Plan.”*

Business Understanding

- *“As we diligently worked to undertake difficult business decisions we also kept focus on maximizing and creating business opportunities for new growth.”*
- *“Dr. Docherty will lead the University into our second century and further Mount Royal’s aspiration to be Canada’s premier undergraduate University based on important business measures of student success and satisfaction.”*
- *“UFV will measure its success by the successes of its graduates and the successful development of the communities they serve. In achieving its business goals, UFV has committed to being innovative, entrepreneurial, and accountable.”*
- *“The exercise also illustrated NAIT’s competitive advantage. As a polytechnic – one of Canada’s biggest, with roughly 80,000 students served and registrations, and nearly 7,900 graduates this year – our strength lies in our relevance and responsiveness with respect to Alberta’s current and emerging needs. Just as I experienced in my first weeks here, we deliver programs through hands-on learning. Students learn by doing, and then apply rigorous theory to generalize their knowledge. Through that pragmatic approach, we are preparing our students for real jobs and careers. Thanks to our close partnership with Alberta business and industries – strengthened by institute research that focuses on solving real challenges faced – we can ensure our grads are ready to contribute to the prosperity of their communities.”*
- *“Thanks to its entrepreneurial outlook, responsible fiscal management and focus on the year’s strategic priorities of Teaching Excellence, Employee Engagement, Systems and Process Efficiencies and Workforce Development, SAIT continued to deliver the job-ready graduates needed to fuel the economy.”*

4.2.2.3 Organizational Performance

The theme of organizational performance was related to the themes of effectiveness and efficiency (i.e., Management Control Systems).

Institutional documents reported that institutions were held accountable for their actions by the government. Therefore, institutions needed to meet both the government’s

compliance standards and the community's expectations in order to receive funding. As such, the focus was on being managerially accountable to the government and to the community:

- *"We value accountability. We are accountable to our students, to each other and to the public."*
- *"Finally, we stress the importance of accountability – the achievement of excellence in educational outcomes while remaining fiscally responsible – at all levels."*
- *"The reviews are conducted for two reasons: accountability and improvement. In recent years, services delivered to students have also embarked on a systematic schedule of review to ensure the currency and relevance of their delivery within a University environment. Such reviews are undertaken to support the practice of quality assurance."*
- *"To be an accountable, progressive institution, academic centres of excellence, increased continuing education offerings, increase in applied research activity, steward the creation of institutional agility and embody dedication towards environmental, social, learning and economic sustainability."*

4.2.2.3.1 Professional Accountability: Effectiveness

A theme like the notion that the institution was committed to effectiveness appeared systematically. As stated by institutions in their annual reports:

- *"With the vision of a Province that not only recognized but valued access to post-secondary education for its citizens, they built an educational foundation that has proven itself integral in developing the knowledge-based economy that is critical to our Province today."*
- *"Bow Valley College welcomes students from across the Province and around the world, serving them with more than 700 full-time, part-time, and contract faculty and staff who speak more than 50 languages. More than 390 International students studied in credit programs."*
- *"Collaborations: The University of Alberta and the Helmholtz Association of German Research Centres signed a memorandum of understanding to create a five-year agreement called the Helmholtz Alberta Initiative. The goal of the initiative is to collaborate with a world-class research partner to address sustainability challenges related to oil sands production. Fundraising: The University exceeded its fundraising*

goal by \$15 million, securing a total of \$103 million in gifts and pledges. Of this amount, \$65 million was allocated for endowed funds, providing much needed support for chairs, professorships, student awards and innovative programs.”

- “Olds College saw enrolment increasing 1.5% to 1,294 full-load equivalent students. This increase was in part, attributed to adding the second and final year of the Business Administration Diploma. Curriculum was redeveloped from a quarter to a semester system which will provide our students with easier and increased transfer options to other institutions. There was also ongoing development of dual-credit programs and courses for students in the Chinook’s Edge School Division. We expect these courses to be offered beyond our local geographic region in the future. Our specialized Farrier Science program moved to a two year program in order to meet industry requests for enhanced training.”
- “Mount Royal’s core purpose is student success and satisfaction. This was demonstrated throughout the year with our students being recognized on many fronts. The number of students enrolled in credit programs remains constant, which aligns with Mount Royals enrolment plan. From 2009/10 to 2010/11, there were 158 fewer credit students on campus, a 1.1 per cent decrease. Credit course registrations increased by 1,915, or 2.3 per cent over 2009/10. This increase is consistent with the University’s expectations, given that 2008/09 was the first year all the baccalaureate programs were offered. Mount Royal University welcomed 47 additional employees to the institution. There are now 1,653 faculty members (full-time, part-time and credit free), 777 support staff (excluding casuals) and 84 managers at Mount Royal, for a total of 2,466 employees, an increase of 1.9 per cent from 2009/10. Mount Royal took part in NSSE for the third consecutive year in 2011. The NSSE survey was reissued to the first-year baccalaureate cohort along with a somewhat smaller cohort of eligible fourth-year students. Preliminary analysis of Mount Royal’s first-year student data produced higher mean benchmark scores than other participating Canadian universities. The information may be used to indicate where improvements to student engagement could be made at the institutional and faculty levels. Research and scholarship activity continued to increase momentum during 2010/11. (...) In addition, the new Faculty Conference Travel Fund enabled 14 faculty members to present their research at conferences across the world. In 2010/11, work began on implementing policies and procedures for using animals for research and teaching purposes and a Responsible Conduct of research Committee was formed.”

4.2.2.3.2 **Managerial Accountability: Efficiency**

A theme like the notion that the institution was committed to efficiency appeared systematically. As stated by institutions in their annual reports:

- *“Connecting to people and organizations is an important part of what we do, because we have a duty to see that people in the community receive a substantial return on the investment they make in their University and in education as a whole.”*
- *“To help achieve this bold new vision, NorQuest underwent reorganization in January 2011. The goal of the reorganization is to garner improvements in the delivery of programs and generate efficiencies in how the College operates.”*
- *“The University of Alberta’s annual report for the year has been prepared under the Board’s direction in accordance with the government Accountability Act and Ministerial guidelines established pursuant to the Accountability Act. All material economic, environmental or fiscal implications of which we are aware have been considered in the preparation of this report. Included in it is a summary financial report drawn from the University of Alberta’s financial statements for the year end as submitted earlier in a separate document.”*
- *“To balance the budget we were forced to eliminate 19.92 full-time equivalencies. The total dollar value of budget cuts reached \$1.68 million and impacted students, staff, faculty and administration. Exercising sound fiduciary responsibility isn’t always easy, particularly after experiencing previous years of off-setting increases to base grants and recording surpluses.”*
- *“The operating budget included strategic efforts to secure additional revenue sources and the implementation of a wide range of cost containment measures. Difficult budget decisions pertaining to cost containment were required and included the reduction of the College’s administration, program and service budgets.”*
- *“Lakeland budgeted a \$1.7 million deficit for the 2010-2011 year as the institution carried out its plan to finish the final phase of the Vermilion campus residence renovations. The actual result as June 30, 2011 was an excess of revenue of \$2.8 million over expenses. This variance is attributed to additional grants and investment income (\$12.7 million), additional contract revenues (\$781,000) and strong student numbers resulting in tuition fees being \$1.9 million over budget and cafeteria, bookstore and residences being \$1 million better than budget. These excess revenues were offset by supplies and services expenses of \$12 million related to grant spending*

and repairs and maintenance expenditures and \$500,000 in increased cost of goods sold expenses as well as an unutilized utilities budget of \$620,000 due to low gas prices and improved utilization.”

4.2.3 Human Resources

The third research question was whether and how the strategic stance of the higher education institutions in Western Canada, executive leadership and organizational performance were aligned with a mediating role played by Human Resources.

The third core theme identified as a result of the Grounded Theory analysis process, described and explained strategy, executive leadership and organizational performance with no mediating role played by Human Resources.

The subordinate themes identified as a result of the Grounded Theory analysis process were: (i) recruitment; (ii) development; and (iii) strategic Human Resources.

Firstly, most Human Resources departments described their activities as related to transactional activities and recruitment (e.g., management of benefits and payroll, collective agreements, employment opportunities, and compliance with employment standards):

- *“CNC employees are valuable and essential to the success of our College and its students. CNC Human Resources are dedicated to providing the support and services our employees benefit from in order to better their well-being and the environment in which they work. Come and visit us at room 3-333 on the third floor of the Prince George campus.”*
- *“Alberta College of Art + Design is one of only four publicly funded Canadian post-secondary institutions devoted exclusively to the advanced education of visual artists and designers. The college welcomes your interest in employment with Alberta College of Art + Design. As an equal opportunity employer, Alberta College of Art + Design invites submissions from all qualified applicants. Applicants will be considered for advertised positions as well as other suitable vacancies. In situations with several qualified candidates, preference will normally be given to Canadian*

citizens and permanent residents. All requirements of Citizenship and Immigration Canada must be met in determining the successful candidate.”

Secondly, some Human Resources departments described their activities as related to transactional activities and to a broader range of strategic activities (e.g., orientation, professional development):

- *“The Banff Centre offers a diverse range of career opportunities including hospitality and conferences, arts and programming administration, recreation, trades, information technology, library, marketing and more.*

New applicants: Welcome! Please click on the job title you are interested in then at the bottom of the page click 'apply for this position' to create a candidate profile and upload your resume.

Previous applicants. If you have previously applied for a job via our website click here to log in or click on the job title you are interested in then log in at the bottom of the page using your email address and password.

Orientation: This invigorating half day course covers everything you need to know about the Centre, your benefits, policies, and procedures. You also get a tour of our beautiful 53-acre campus, followed by lunch in our renowned Vistas Restaurant.

Professional Development: We encourage staff to engage in lifelong learning by pursuing professional development programs and courses. We believe it's critical for staff to enhance their employment skills and further their careers here at the Centre, that's why we offer staff an opportunity to participate in a diverse range of programs to reach their goals. Take a look at some of the inspiring programs below to see the kinds of professional development programs you can explore while employed at the Centre.”

- *“The Human Resources department is dedicated to creating and delivering a comprehensive range of programs and services to ensure all employees at Okanagan College are supported in their professional growth and development. Human Resources contributes to and supports the mission of Okanagan College in the following manner: We are dedicated to creating and delivering a comprehensive*

range of programs and services, We strive to deliver professional and responsive service in a helpful and effective manner, We are devoted to working with Faculty, Staff and Students in a collaborative fashion, We support and encourage individual and institutional development, We are committed to maximizing technology to improve and enhance our delivery of service, We promote, and endeavour to ensure, safe, healthy and respectful working and learning environments.”

Thirdly, a few Human Resources departments had a strategic plan to demonstrate their strategic involvement and vision at an institutional level:

- *“Human Resource Services is pleased to announce that the Strategic Plan for Human Resource Services 2012 - 2017 has been finalized and shared on the HRS website. The development of the plan is the result of collaboration and hard work; we thank you, our community, for your valuable input into the process. We look forward to seeing the plan come to life over the next five years.”*
- *“Human Resources provide leadership in the development and delivery of a range of strategic, consultative and operational services which support the University community in responding to current needs and realities while anticipating and preparing for the future (see strategic plan). Working in partnership with Stakeholders, Human Resources will be known for providing value-added services and advice which advance the achievement of MacEwan Goals, while supporting Managers, Faculty and Staff.”*
- *“The University of Victoria is named as one of BC’s top 50 employers in an annual competition organized by the editors of Canada’s Top 100 Employers. For the third year in a row, the University of Victoria is being recognized as one of BC’s top 50 employers by the editors of Canada’s Top 50 Employers. The University of Victoria is a diverse and dynamic learning community. People love working here because their work makes a difference. The university values different perspectives, supports personal and professional growth and encourages work life balance. For other great reasons to work here, please consult our plan.”*

4.2.4 Summary

As a general statement, the institutional documents study provided less in-depth information than the semi-structured interviews study. This was expected within a Grounded Theory research approach (Schreiber and Stern, 2001, pp.78-87; McNally, 2009, p.101), because semi-structured interviews were primary data (i.e., data specifically created for the purpose of the research) whereas institutional documents were secondary data (i.e., data primarily created for another purpose than the research). However, the findings from the institutional documents study strengthened the findings from the semi-structured interviews study, as they displayed similar patterns of findings using different types of data (i.e., see Appendix R and Appendix U).

4.2.4.1 Proposition 1: Higher Education Industry

The institutional documents study confirmed that there was a functional interrelationship between the strategic stance of higher education institutions in Western Canada and changes in terms of governmental rules, competitive markets and organizational culture (i.e., external and internal strategic analysis).

Changes in governmental rules related to the need for higher education institutions to be more servant and accountable to the community had an impact on the way higher education institutions focused on changes in competitive markets and changes in the organisational culture. Changes in competitive markets resulted in the necessity to find new markets (i.e., international students) and alternative models of teaching (i.e., blended and online teaching models) to satisfy students' and employers' demands. Changes in organizational culture were related to a paradigm shift that resulted in a "no ivory tower" mentality allowed inside the institution and a focus on students' success and innovation instead.

4.2.4.2 Proposition 2: Management Control Systems

The institutional documents study confirmed that there was a functional interrelationship between the strategic stance of higher education institutions in Western Canada, executive

leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Management Control Systems.

The strategic stance of higher education institutions in Western Canada was shown to closely follow Roles & Mandates as issued by the government. Changes in strategic stance were shown to impact the governance structure (i.e., Management Control Systems) and the executive leaders' profile. Indeed, even if the governance structure was still largely profiled as shared governance, and even if executive leaders' profiles were described as academic (i.e., Presidents described as PhDs with previous experience in education), distributed and servant, executive leaders' profile was also described as entrepreneurial and managerial (i.e., Presidents described as CEOs or as having to take business decisions). Changes in strategic stance were also shown to be related to an increased pressure for accountability (i.e., Management Control Systems) in terms of effectiveness and efficiency (i.e., even if this may be "devious compliance" as described in the semi-structured interviews study).

4.2.4.3 *Proposition 3: Human Resources*

The institutional documents study confirmed that there was no real mediating role played by the Human Resources department in the functional interrelationships between the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance (i.e., strategic alignment).

The Human Resources department was generally not described as involved in the recruitment and development of executive leaders. In fact, the Human Resources department was not described as involved in any executive leadership or strategic matter for most higher education institutions.

4.3 Findings of the Triangulation Study

The triangulation study sought to further explore the core themes extracted from the semi-structured interviews study and the institutional documents study, as well as their interrelationships, using descriptive univariate & bivariate statistics and other non-parametric statistics.

The research questions are: (i) whether and how changes in the external and internal strategic environment of the higher education industry can be described and explained in terms of changes in governmental rules, competitive markets and organizational culture; (ii) whether and how the strategic stance of higher education institutions, executive leadership, and organizational performance are strategically aligned with a mediating role played by Management Control Systems; and (iii) whether and how the strategic stance of the higher education institutions, executive leadership and organizational performance are strategically aligned with a mediating role played by Human Resources.

The purpose of this section is to provide a summary of the findings for the triangulation study. A series of variables were selected from the information available to further explore the core themes and their interrelationships. The core theme of changes in the industry was not possible to explore in the triangulation study, because of limitations in terms of institutional documents and information available. As a consequence, the core themes explored in the triangulation study were related to strategy, executive leadership, organizational performance, Management Control Systems and Human Resources.

4.3.1 Descriptive Univariate Statistics

The goal of this section was to further explore the core themes extracted in the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study (Suddaby, 2006, pp.633-642; Strauss and Corbin, 1998, p.18; Glaser and Strauss, 1967, p.23).

Since the data included the population for all publicly funded higher education institutions in Western Canada, raw data could be analysed in terms of descriptive univariate statistics. As a consequence, computing descriptive univariate statistics (e.g., frequencies, percentages, means and standard deviations) provided an accurate picture of the data for the population of all publicly funded higher education institutions in Western Canada.

4.3.1.1 Management Control Systems

4.3.1.1.1 Strategic Alignment

Frequency data for the Roles & Mandates of 46 higher education institutions in Western Canada (i.e., 21 publicly funded higher education institutions in Alberta and 25 publicly funded higher education institutions in British Columbia) was presented in Table 4.1. The table summarized the results in terms of frequency and percentages. It showed that 17 institutions were “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions”, 22 institutions were “Comprehensive Community Institutions”, and 7 institutions were “Specialized Art and Culture Institutions and Polytechnical Institutions” in Western Canada.

Table 4.1 *Frequencies and percentages of higher education institutions in Western Canada as a function of their Roles & Mandates*

Roles & Mandates	Province		Total (Percentages)
	Alberta	BC	
“Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions”	4	3	7 (15.3%)
“Comprehensive Community Institutions”	11	11	22 (47.8%)
“Specialized Art and Culture Institutions and Polytechnical Institutions”	6	11	17 (36.9%)
Total	21	25	46

Frequency data for the programs strategy was presented in Table 4.2. The table summarized the results in terms of frequency and percentages. It showed that 34.8% of higher education institutions in Western Canada were comprehensive institutions at an under-graduate level (i.e., “Comprehensive Community Institutions”) and 26.1% were comprehensive institutions at both the under- and post-graduated level (i.e., “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions”). This data showed that 60.9% of higher education institutions in Western Canada tended to be the most comprehensive possible in terms of their programs strategy. Only smaller institutions were more specialized in terms of their programs.

The implications of these findings were that choices in terms of programs strategy of higher education institutions in Western Canada were aligned with the Roles & Mandates as expressed by the government. These results confirmed the findings extracted from the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study in terms of programs strategy.

Table 4.2 *Frequencies and percentages for the programs strategy of higher education institutions in Western Canada*

Programs	Province		Total (Percentages)
	Alberta	BC	
“Non parchment programs”	1	0	1 (2.2%)
“Certificates Diplomas Adult Completion”	4	5	9 (19.6%)
“Certificates Diplomas Adult High School Completion Apprenticeship Collaborative Degrees “	7	9	16 (34.8%)
“Apprenticeship Certificate Diplomas Technical Applied Baccalaureate”	2	0	2 (4.3%)
“Certificates Diplomas Applied Baccalaureate”	2	4	6 (13.0%)
“Comprehensive Under and Post Graduated”	5	7	12 (26.1%)
Total	21	25	46

Frequency data for the research strategy was presented in Table 4.3. The table summarized the results in terms of frequency and percentages. It showed that 54.4% of higher education institutions in Western Canada were using applied research and scholarly activity to support their teaching (i.e., “Specialized Art and Culture Institutions and Polytechnical Institutions” and “Comprehensive Community Institutions”) and only 23.9% of higher education institutions in Western Canada had comprehensive research functions (i.e., “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions”). This showed that most higher education institutions in Western Canada had only a limited focus on comprehensive research.

The implications of these findings were that choices in terms of research strategies of higher education institutions in Western Canada were aligned with the Roles & Mandates as expressed by the government. These results confirmed the findings extracted from the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study in terms of the research strategy.

Table 4.3 *Frequencies and percentages for the research strategy of higher education institutions in Western Canada*

Research	Province		Total (Percentages)
	Alberta	BC	
“Applied Research”	5	5	10 (21.7%)
“Applied Research & Scholarly Activity”	12	13	25 (54.4%)
“Comprehensive Research Function”	4	7	11 (23.9%)
Total	21	25	46

4.3.1.1.2 *Executive Leadership*

Mean data for the members on the Board of Governors was presented in Table 4.4. The table summarized the results in terms of means and standard deviations. It showed that the mean for the total number of members on the Board of Governors was 14.87 (*S.D.* = 3.18) with a majority of public and appointed members (*M.* = 8.20, *S.D.* = 1.89) and a minority of internal and elected members (*M.* = 4.39, *S.D.* = 2.24).

The implications of these findings were that there was a “stewardship and accountability” obligation of higher education institutions in Western Canada, since there was a majority of public members appointed by the government on the Board of Governors. These results confirmed the findings extracted from the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study in terms of the composition of the Board of Governors.

Table 4.4 *Mean data and standard deviations for members on the Board of Governors of higher education institutions in Western Canada*

Board of Governors	Province		
	Alberta	BC	Total (Standard Deviations)
“Executive”	2.67	1.96	2.28 (0.65)
“Internal and Elected Members”	4.38	4.40	4.39 (2.24)
“Public and Appointed Members”	8.43	8.00	8.20 (1.89)
Total	15.48	14.36	14.87 (3.18)

Frequency data for the credentials of the Presidents was presented in Table 4.5. The table summarized the results in terms of frequency and percentages. It showed that 76.1% of the Presidents in higher education institutions in Western Canada had a PhD, 19.6% of the Presidents in higher education institutions in Western Canada had at least a Masters, and only 4.3% of the Presidents in higher education institutions in Western Canada had less than a Masters.

The implications of these findings were that the majority of Presidents in higher education institutions of Western Canada had high credentials. These results confirmed the findings extracted from the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study in terms of the profile of the Presidents.

Table 4.5 *Frequencies and percentages for Presidents' highest credentials in higher education institutions in Western Canada*

Credentials	Province		
	Alberta	BC	Total (Percentages)
"Less than Masters"	1	1	2 (4.3%)
"Masters"	4	5	9 (19.6%)
"PhD"	16	18	34 (76.1%)
Total	21	24	45*

**One data missing.*

Frequency data for the previous academic & administrative experience of the Presidents was presented in Table 4.6. The table summarized the results in terms of frequency and percentages. It showed that 73.7% of the Presidents in higher education institutions in Western Canada had at least a Dean's level of academic & administrative experience previous to becoming a President, and 17.4% of the Presidents did have less than an experience of Chair previous to becoming a President.

The implications of these findings were that a majority of Presidents in higher education institutions of Western Canada had been growing within the industry. These findings confirmed the findings extracted from the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study in terms of the profile of the Presidents.

Table 4.6 *Frequencies and percentages for Presidents' previous academic & administrative experience in higher education institutions in Western Canada*

Experience	Province		Total (Percentages)
	Alberta	BC	
"Chair or less"	4	4	8 (17.4%)
"Dean"	3	2	5 (11.5%)
"VP"	13	15	28 (62.2%)
"President"	1	3	4 (8.9%)
Total	21	24	45*

*One data missing.

Frequency data for the title of the Presidents was presented in a Table 4.7. The table summarized the results in terms of frequency and percentages. It showed that 32.6% of the Presidents in higher education institutions in Western Canada were Presidents-CEOs, 39.1% were Presidents only, and 28.3 were Presidents-Vice-Chancellors.

The implications of these mixed patterns of findings were that there was a more managerial approach to higher education for 32.6% of the higher education institutions in Western Canada (i.e., with Presidents-CEOs). These results confirmed the findings extracted from the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study in terms of the profile of the Presidents.

Table 4.7 ***Frequencies and percentages for Presidents' titles in higher education institutions in Western Canada***

Title	Province		Total (Percentages)
	Alberta	BC	
"President"	8	10	18 (39.1%)
"President-CEO"	7	8	15 (32.6%)
"President-Vice-Chancellor"	6	7	13 (28.3%)
Total	21	25	46

4.3.1.1.3 *Organizational Performance*

Mean data for performance outcomes were presented in Table 4.8. The table summarized the results in terms of means and standard deviations. It displayed the mean for the operating grant ($M. = 95,784,065$), the mean for the number of FTE students ($M. = 7,095.33$) and the mean for the operating grant per FTE ($M. = 13,586$).

The implications of these findings were that there was a substantial amount of variability between higher education institutions in Western Canada in terms of performance indicators used by the government to compare higher education institutions with each other. These results confirmed the findings extracted from the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study in terms of the variability of effectiveness and efficiency measures.

Table 4.8 *Mean data and standard deviations for operating grant (in thousands), FTE students, and operating grant per FTE student for higher education institutions in Western Canada*

Performance	Province		
	Alberta	BC	Total (Standard Deviations)
“Operating grant”	96,456	95,112	95,784 (*)
“FTE students”	6855.62	7296.76	7,076 (*)
“Operating grant per FTE student”	14,069	13,034	13,536 (*)

* *Out of range values.*

4.3.1.2 Human Resources

Frequency data for the role played by Human Resources was presented in Table 4.9. The table summarized the results in terms of frequency and percentages. It showed that 37.0% of higher education institutions in Western Canada were using their Human Resources department as a strategic partner and 63% of higher education institutions in Western Canada were using their Human Resources department for transactional purposes only.

The implications of these findings were that most higher education institutions in Western Canada had a limited focus on their Human Resources department when trying to strategically align their institution. These results confirmed the findings extracted from the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study in terms of the transactional role played by the Human Resources department.

Table 4.9 *Frequencies and percentages for the strategic role played by Human Resources in higher education institutions in Western Canada*

Human Resources Role	Province		Total (Percentages)
	Alberta	BC	
“Transactional Activities & Recruitment”	9	11	20 (43.5%)
“Transactional Activities & Development”	6	5	9 (19.5%)
“Strategic Plan”	8	9	17 (37.0%)
Total	21	25	46

4.3.2 Descriptive Bivariate Statistics and Other Non-Parametric Statistics

The goal of this section was to further explore the interrelationships existing between the core themes extracted in the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study (Suddaby, 2006, pp.633-642; Strauss and Corbin, 1998, p.18; Glaser and Strauss, 1967, p.23).

All variables were correlated using descriptive bivariate statistics. The impact of Roles & Mandates on these variables was further explored using other non-parametric statistics.

4.3.2.1 Province

Referring to Appendix T, the rank bi-serial correlation coefficients revealed that there were no statistically significant relationships between the province and the variables explored in this part of the research.

These findings strengthened the idea that the Memorandum of Agreements between Alberta and British Columbia (i.e., Alberta BC Memorandum, 2007) resulted in a comparable and aligned system (Boyko and Jones, 2010, pp.83-102).

4.3.2.2 *Management Control Systems*

4.3.2.2.1 *Strategy*

Referring to Appendix T, the Spearman's rhos revealed a statistically significant positive relationship between the Roles & Mandates of the institutions (i.e., Strategic Stance) and the strategy of the programs ($r_s(46) = .69, p < .000$) and the strategy of the research ($r_s(46) = .66, p < .000$). The Spearman's rhos revealed a statistically significant positive relationship between the strategy of the programs and the strategy of the research ($r_s(46) = .92, p < .000$).

A Krustal-Wallis test revealed a significant effect of the Roles & Mandates of the institutions (i.e., Strategic Stance) on the strategy of the programs ($h(2) = 31.85, p < .000$). Post-hoc tests using Mann-Whitney tests with Bonferroni corrections showed a significant difference between mean ranks of excellence of the programs for "Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions" as opposed to "Comprehensive Community Institutions" and "Specialized Art and Culture Institutions and Polytechnical Institutions" ($p < .000$ and $p < .000$, respectively).

A contingency table suggested a higher frequency of "Certificates & Diplomas, Adult High School Completion, Apprenticeship, Collaborative Baccalaureate Programming" for the "Specialized Art and Culture Institutions and Polytechnical Institutions" and for the "Comprehensive Community Institutions" and a higher frequency of "Comprehensive Baccalaureate & Graduate Programs" for the "Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions". The contingency table with the frequency of the programs as a function of the Roles & Mandates was presented in Table 4.10.

Table 4.10 ***Contingency table for the frequency of the programs as a function of the Roles & Mandates of institutions in higher education institutions in Western Canada***

Programs Strategy	Roles & Mandates			Total
	“Specialized Art and Culture Institutions and Polytechnical Institutions”	“Comprehensive Community Institutions”	“Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions”	
“Non-Parchment Programs”	1	0	0	1
Certificates & Diplomas, Adult High School Completion”	1	8	0	9
“Certificates & Diplomas, Adult High School Completion, Apprenticeship, Collaborative Baccalaureate Programming”	3	13	0	16
“Apprenticeship, Certificate, & Diploma Programs for Technical Vocations, some Applied & Baccalaureate Degrees in Specified Areas”	1	1	0	2
“Baccalaureate Degrees, Certificates & Diplomas, and Applied Degrees”	0	0	6	6
	1	0	11	12
“Comprehensive Baccalaureate & Graduate Programs”				
Total	7	22	17	46

A Krustal-Wallis test revealed a significant effect of the Roles & Mandates of the institutions (i.e., Strategic Stance) on the strategy of the research ($h(2) = 22.86, p < .000$). Post-hoc tests using Mann-Whitney tests with Bonferroni corrections showed a significant difference between the mean ranks of excellence of the research for “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions” as opposed to “Comprehensive Community Institutions” and “Specialized Art and Culture Institutions and Polytechnical Institutions” ($p < .000$ and $p < .000$, respectively).

A contingency table suggested a higher frequency of “Applied Research & Scholarly Activity” for the “Specialized Art and Culture Institutions and Polytechnical Institutions” and for the “Comprehensive Community Institutions” and a higher frequency of “Comprehensive Research Function” for the “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions”. The contingency table with the frequency of the research as a function of the Roles & Mandates was presented in Table 4.11.

Table 4.11 *Contingency table for the frequency of the research as a function of the Roles & Mandates of institutions in higher education institutions in Western Canada*

Research Strategy	Roles & Mandates			Total
	“Specialized Art and Culture Institutions and Polytechnical Institutions”	“Comprehensive Community Institutions”	“Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions”	
-“Applied Research”	2	8	0	10
Applied Research and Scholarly Activity”	5	14	6	25
“Comprehensive Research Function”	0	0	11	11
Total	7	22	17	46

As a summary, the Roles & Mandates as expressed by the government had a moderate impact on the strategy of the programs and the strategy of the research in higher education institutions in Western Canada, and the strategy of the programs and the strategy of the research were strongly correlated. Also, the differences in terms of the strategy of programs and in terms of the strategy of research were between “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions” as opposed to “Comprehensive Community Institutions” and “Specialized Art and Culture Institutions and Polytechnical Institutions”. These results strengthened the findings extracted from the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study, in terms of the top-down interrelationships existing between the core themes of Roles & Mandates as expressed by the government and the strategy of the programs and strategy of the research of higher education institutions.

4.3.2.2.2 *Executive Leadership*

4.3.2.2.2.1 *Board of Governors*

Referring to Appendix T, the Spearman's rhos revealed a statistically significant positive relationship between the Roles & Mandates of the institutions (i.e., Strategic Stance) and the number of elected internal members sitting on the Board of Governors ($r_s(46) = .56$, $p < .000$). The Spearman's rhos revealed a statistically significant positive relationship between the strategy of the programs ($r_s(46) = .51$, $p < .000$) or the strategy of the research ($r_s(46) = .44$, $p < .000$) and the number of internal members sitting on the Board of Governors. The Spearman's rhos revealed a statistically significant positive relationship between the number of internal members sitting on the Board of Governors and the operating grant ($r_s(46) = .34$, $p < .01$) and the FTE students ($r_s(46) = .35$, $p < .01$).

A Krustal-Wallis test revealed a significant effect of the Roles & Mandates of the institutions (i.e., Strategic Stance) on the number of elected internal members sitting on the Board of Governors ($h(2) = 14.35$, $p < .000$). Post-hoc tests using Mann-Whitney tests with Bonferroni corrections showed a significant difference between the mean ranks of elected internal members sitting on the Board of Governors, with lower mean ranks of internal and elected members for the "Specialized Art and Culture Institutions and Polytechnical Institutions" and the "Comprehensive Community Institutions" ($p < .000$ and $p < .000$, respectively) as opposed to the "Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions".

As a summary, the Roles & Mandates as expressed by the government had a moderate impact on the composition of the Board of Governors (i.e., the number of elected internal members), and as a consequence the strategy of the programs and the strategy of the research of the institution also had a moderate impact on the composition of the Board of Governors (i.e., the number of elected internal members) in higher education institutions in Western Canada. Also, the difference in terms of the number of elected internal members sitting on the Board of Governors was between the "Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions" as opposed to the "Comprehensive Community Institutions" and the "Specialized Art and Culture Institutions and Polytechnical Institutions". These results strengthened the findings

extracted from the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study, in terms of the top-down interrelationships existing between the core themes of Roles & Mandates as expressed by the government and the composition of the Board of Governors (i.e., representation of the government on the Board of Governors).

4.3.2.2.2.2 *Executive Leaders*

Referring to Appendix T, the Spearman's rhos revealed a statistically significant positive relationship between the Roles & Mandates of the institutions (i.e., Strategic Stance) and the President's credentials ($r_s(46) = .35, p < .01$) or the President's title ($r_s(46) = .59, p < .000$). The Spearman's rhos revealed a statistically significant positive relationship between the strategy of the program and the credentials of the President ($r_s(46) = .48, p < .01$) and the title of the President ($r_s(46) = .57, p < .000$). The Spearman's rhos revealed a statistically significant relationship between the strategy of the research and the credentials of the President ($r_s(46) = .37, p < .01$) and the title of the President ($r_s(46) = .50, p < .000$).

A Krustal-Wallis test revealed a significant effect of the Roles & Mandates of the institutions (i.e., Strategic Stance) on the President's credentials ($h(2) = 2.28, p < .01$), however, post-hoc tests using Mann-Whitney tests with Bonferroni corrections did not show any difference between the groups (i.e., presumably because the main effect resulted from a type 1 error).

A Krustal-Wallis test revealed a significant effect of the Roles & Mandates of the institutions (i.e., Strategic Stance) on the President's title ($h(2) = 14.85, p < .001$). Post-hoc tests using Mann-Whitney tests with Bonferroni corrections showed a significant difference between the mean ranks with lower mean rank of the President's title for the "Specialized Art and Culture Institutions and Polytechnical Institutions" as opposed to the "Comprehensive Community Institutions" ($p < .001$) and as opposed to the "Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions" ($p < .000$).

A contingency table suggested a higher frequency of “Presidents” for the “Specialized Art and Culture Institutions and Polytechnical Institutions”, a higher frequency of “Presidents-CEOs” for the “Comprehensive Community Institutions” and a higher frequency of “Presidents-Vice-Chancellors” for “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions”. The contingency table with the frequency of the titles of the President as a function of the Roles & Mandates was presented in Table 4.12.

Table 4.12 *Contingency table for the frequency of the title of the president as a function of the Roles & Mandates of institutions in higher education institutions in Western Canada*

President’s Title	Roles & Mandates			Total
	“Specialized Art and Culture Institutions and Polytechnical Institutions”	“Comprehensive Community Institutions”	“Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions”	
“President”	4	10	4	18
“President-CEO”	3	12	0	15
“President-Vice-Chancellor “	0	0	13	13
Total	7	22	17	46

As a summary, the Roles & Mandates as expressed by the government had a moderate impact on the profile of the President in terms of credentials and titles, and as a consequence the strategy of the programs and the strategy of the research of the institution also had a moderate impact on the profile of the President in terms of credentials and titles in higher education institutions in Western Canada. Also, the difference in terms of the President's title was between the "Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions" as opposed to the "Comprehensive Community Institutions" as opposed to the "Specialized Art and Culture Institutions and Polytechnical Institutions". These results strengthened the findings extracted from the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study, in terms of the top-down interrelationships existing between the core themes of Roles & Mandates as expressed by the government and the profile of the Presidents.

4.3.2.2.3 *Organizational Performance*

Referring to Appendix T, the Spearman's rhos revealed a statistically significant positive relationship between the Roles & Mandates of the institutions (i.e., Strategic Stance) and the operating grant ($rs(46) = .44, p < .002$) or the FTE students ($rs(46) = .44, p < .002$). The Spearman's rhos revealed a statistically significant positive relationship between the strategy of the programs and the operating grant ($rs(46) = .45, p < .002$) and FTE students ($rs(46) = .51, p < .000$). The Spearman's rhos revealed a statistically significant relationship between the strategy of the research and the operating grant ($rs(46) = .40, p < .005$) and FTE students ($rs(46) = .47, p < .001$). The Spearman's rhos revealed a statistically significant relationship between the operating grant and the FTE students ($rs(46) = .89, p < .000$). There was no statistically significant relationship between organizational performance metrics and executive leadership related variables.

A Krustal-Wallis test revealed a significant effect of the Roles & Mandates of the institutions (i.e., Strategic Stance) on the operating grant and FTE students ($h(2) = 10.38, p < .006$ and $h(2) = 12.52, p < .002$, respectively). Post-hoc tests using Mann-Whitney tests with Bonferroni corrections showed a significant difference between the mean ranks of operating grant for the "Specialized Art and Culture Institutions and Polytechnical Institutions" as opposed to the "Comprehensive Community Institutions" ($p < .01$) and as opposed to the "Baccalaureate and Applied Studies Institutions and Comprehensive

Academic and Research Institutions” ($p < .01$). Post-hoc tests using Mann-Whitney tests with Bonferroni corrections showed a significant difference between the mean ranks of FTE students for the “Specialized Art and Culture Institutions and Polytechnical Institutions” as opposed to the “Comprehensive Community Institutions” ($p < .02$) and as opposed to the “Baccalaureate and Applied Studies Institutions and the Comprehensive Academic and Research Institutions” ($p < .02$).

As a summary, the Roles & Mandates as expressed by the government had a moderate impact on the operating grant and FTE students (i.e., but not on the operating grant per FTE student) and as a consequence the strategy of the programs and the strategy of the research of the institution also had a moderate impact on the operating grant and FTE students in higher education institutions in Western Canada. Also, there was no significant impact of executive leadership related variables on organizational performance. Also, the difference in terms of the operating grant and FTE students were between the “Baccalaureate and Applied Studies Institutions” as opposed to the “Comprehensive Academic and Research Institutions” and as opposed to the “Specialized Art and Culture Institutions and Polytechnical Institutions”. These results strengthened the findings extracted from the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study, in terms of the top-down interrelationships existing between the core themes of Roles & Mandates as expressed by the government and organizational performance. These results also strengthened the findings extracted from the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study, in terms of the lack of interrelationship existing between the core themes of executive leadership and organizational performance.

4.3.2.3 *Human Resources*

Referring to Appendix T, the Spearman's rhos revealed a statistically significant positive relationship between the Roles & Mandates of the institutions (i.e., Strategic Stance) and the role of the Human Resources department ($r_s(46) = .49, p < .000$). The Spearman's rhos revealed a statistically significant positive relationship between the strategy of the programs ($r_s(46) = .51, p < .000$) and the strategy of the research ($r_s(46) = .50, p < .000$) and the role of the Human Resources department. The Spearman's rhos also revealed a statistically significant positive relationship between the credentials ($r_s(46) = .35, p < .01$) and the academic & administrative experience ($r_s(46) = .33, p < .02$) of the President and the role of the Human Resources department. The Spearman's rhos also revealed a statistically significant positive relationship between the role of the Human Resources department and the operating grant ($r_s(46) = .42, p < .003$) or the number of FTE students ($r_s(46) = .46, p < .001$).

A Krustal-Wallis test revealed a significant effect of the Roles & Mandates of the institutions (i.e., Strategic Stance) on the role of the Human Resources department ($h(2) = 14.59, p < .001$). Post-hoc tests using Mann-Whitney tests with Bonferroni corrections showed a significant difference between the mean ranks of roles of the Human Resources department for the "Specialized Art and Culture Institutions and Polytechnical Institutions" and for the "Comprehensive Community Institutions" as opposed to "Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions" ($p < .001$ and $p < .001$, respectively).

A contingency table suggested a higher frequency of "Transactional Activities and Recruitment" for the "Specialized Art and Culture Institutions and Polytechnical Institutions" and for the "Comprehensive Community Institution", as well as a higher frequency of "Strategic Plan" for the "Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions". The contingency table with the frequency of the Human Resources role as a function of the Roles & Mandates of the institutions was presented in Table 4.13.

Table 4.13 ***Contingency table for the frequency of the role of Human Resources as a function of the Roles & Mandates of institutions in higher education institutions in Western Canada***

Human Resources Role	Roles & Mandates			Total
	“Specialized Art and Culture Institutions and Polytechnical Institutions”	“Comprehensive Community Institutions”	“Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions”	
“Transactional Activities and Recruitment”	4	14	2	20
“Transactional Activities, Recruitment and Development “	2	5	2	9
“Strategic Plan”	1	3	13	17
Total	7	22	17	46

As a summary, the Roles & Mandates as expressed by the government had a moderate impact on the role of the Human Resources department (i.e., with an impact of the Human Resources department on the operating grant and FTE students and on executive leadership related variables), and as a consequence the strategy of the programs and the strategy of the research of the institution also had a moderate impact on the role of the Human Resources department in higher education institutions in Western Canada. Also, the difference in terms of the role of the Human Resources department was between the “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions” as opposed to the “Comprehensive Community Institutions” and the “Specialized Art and Culture Institutions and Polytechnical Institutions”. These results strengthened the findings extracted from the Grounded Theory analysis of the semi-structured interviews study and the institutional documents study, in terms of the lack of interrelationships existing between the core themes of Human Resources and other themes related to strategic alignment. These findings also strengthened the findings extracted from the Grounded Theory analysis of the institutional documents study, in terms of the interrelationships existing between the core themes of Roles & Mandates as expressed by the government and the role of the Human Resources department.

4.3.3 Summary

The triangulation study provided less in-depth information than the semi-structured interviews study and institutional documents study. However, the findings from the triangulation study further strengthened the findings from the semi-structured interviews study and institutional documents study, as they displayed similar patterns using a different types of analysis (i.e., see Appendix U).

4.3.3.1 Descriptive Univariate Statistics

The triangulation study quantitatively explored the core themes of strategy, executive leadership, organizational performance, Management Control Systems and Human Resources.

4.3.3.1.1 *Proposition 1: Higher Education Industry*

The core theme of changes in the industry was not possible to explore in the triangulation study, because of limitations in terms of institutional documents and information available.

4.3.3.1.2 *Proposition 2: Management Control Systems*

The triangulation study showed that the majority of higher education institutions in Western Canada were as comprehensive as possible in terms of their teaching programs (i.e., 60.9% of the higher education institutions in Western Canada tended to be the most comprehensive possible in terms of their programs offerings) but not in terms of their research profile (i.e., 23.9% of the higher education institutions in Western Canada tended to be the most comprehensive possible in terms of their research programs). This was believed to be related to the fact that comprehensive teaching programs led to increased enrolments (i.e., with an increase in operating grants and revenue) whereas comprehensive research programs led to increased costs (i.e., with no direct increase in operating grants and revenue).

4.3.3.1.3 *Proposition 3: Human Resources*

The triangulation study showed that the majority of the people sitting on the Board of Governors in higher education institutions in Western Canada were community appointed members (i.e., $M. = 8.20$) as opposed to internal elected members (i.e., $M. = 4.39$). This was believed to be related to the fact that Boards of Governors represented the community and the government to make sure the institution was accountable (i.e., Management Control Systems). The triangulation study showed that the majority of Presidents in higher education institutions in Western Canada had a PhD (i.e., 76.1%) as opposed to a Masters (i.e., 19.6%) or less than a Masters (i.e., 4.3%), had previous experience in education at a Vice President's level (i.e., 62.2%) as opposed to a Dean's level (i.e., 11.5%), Chair's level (i.e., 17.4%), or President's level (i.e., 8.9%), and were President only (i.e., 39.1%) as opposed to President-CEO (i.e., 32.6%) or President-Vice-Chancellor (i.e., 28.3%). This was believed to be related to the fact that even if a managerial approach to higher education was changing executive leaders' profile in

Western Canada, the process was not fully completed as compared to other countries worldwide.

The triangulation study showed that the mean operating grant was \$95,784 (i.e., in thousands), the mean number of FTE students was 7,076, and the mean operating grant per FTE student was \$13,536 with some substantial variations from institutions to institutions (e.g., standard deviations were displaying out of range values). This extreme variability was believed to be related to the fact that Western Canada covered a vast geographic area with a wide range of higher education institutions, from “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions” in high-density areas to “Comprehensive Community Institutions” in very small communities.

The triangulation study showed that the majority of Human Resources departments were transactional (i.e., 63%) with only a few institutions that had a strategic Human Resources department (i.e., 37.0%). Institutions that had a strategic Human Resources department were mostly “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions”. These institutions were believed to understand the strategic nature of their Human Resources department better than smaller and/or less comprehensive institutions.

4.3.3.2 Descriptive Bivariate Statistics and Other Non-Parametric Statistics

The triangulation study quantitatively explored the interrelationships existing between the core themes of strategy, executive leadership, organizational performance, Management Control Systems and Human Resources.

4.3.3.2.1 Proposition 1: Higher Education Industry

The core theme of changes in the industry was not possible to explore in the triangulation study, because of limitations in terms of institutional documents and information available.

4.3.3.2.2 *Proposition 2: Management Control Systems*

The triangulation study confirmed that there was a functional interrelationship between the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Management Control Systems. Strategic alignment could not be described and explained as impacting the strategic stance, executive leadership and organizational performance with multiple feedback loops. Strategic management by executive leaders could not be described and explained as impacting organizational performance.

Firstly, the more comprehensive the Roles & Mandates of the institutions (i.e., Strategic Stance) (i.e., “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions”), the more comprehensive the strategy of the programs and the more comprehensive the strategy of the research. This confirmed an interrelationship between the strategic stance of the institutions as per Roles & Mandates and the characteristics of their strategy in terms of programs and research.

Secondly, the more comprehensive the Roles & Mandates of the institutions (i.e., Strategic Stance), the strategy of the programs and the strategy of the research, the higher the number of internally elected members as opposed to the externally appointed members on the Board of Governors. This was believed to be related to the fact that “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions” were more distributed and acknowledged their faculty and staff better in the decision making process because of a stronger “ivory tower” culture within this type of institution.

Thirdly, the more comprehensive the Roles & Mandates of the institutions (i.e., Strategic Stance) and the strategy of the programs and research, the higher the credential (i.e., PhD) and title (i.e., President-Vice-Chancellor) of the President. This was believed to be related to the fact that the type of executive leadership was related to the strategy of the institution and that an institution with a focus on research needed to have a President who would be respected by his/her faculty and staff. As such, Presidents in “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions” needed to have a PhD and a prestigious title.

Fourthly, the more comprehensive the Roles & Mandates of the institutions (i.e., Strategic Stance), the more comprehensive the strategy of the programs, the more comprehensive the strategy of the research, the higher the level of operating grant, and the higher the number of FTE students. However, the type of executive leadership in the organization was not related to organizational performance. This was believed to be related to the fact that the Roles & Mandates of the institutions (i.e., Strategic Stance) was strongly aligned with a series of outcomes, but that executive leadership was not necessarily mediating this interrelationship.

4.3.3.2.3 *Proposition 3: Human Resources*

The triangulation study confirmed that there was a functional interrelationship between the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance (i.e., strategic alignment) with only a limited mediating role played by Human Resources.

Indeed, the Roles & Mandates of the institutions (i.e., Strategic Stance) was positively related to the level of strategic involvement of the Human Resources department (i.e., the more comprehensive the institution, the more Human Resources were strategically involved in aligning the institution).

Also, the type of activity in the Human Resources department was positively related to the credentials and the previous academic & administrative experience of the President (i.e., the higher the level of credentials and experience of the President, the more strategically involved the Human Resources department). This was believed to be related to the fact that the more comprehensive the institution, the more resources were available for Human Resources to be strategic, and the more the President had an actual understanding of the value of Human Resources as a way to align the institution due to his/her credentials and experience.

CHAPTER 5 - DISCUSSION

This chapter discusses the empirical, theoretical and practical contributions of the research. The chapter starts with a summary of the findings. This chapter then focuses on the range of description and explanation of the research in relation to the empirical debates in the literature review (i.e., empirical outcomes). This chapter then focuses on the range of description and explanation of the research in relation to the theoretical debates in the literature review (i.e., theoretical outcomes). An enhanced contingency theoretical framework is elaborated by comparing the findings of the semi-structured interviews study, the institutional documents study and the triangulation study to the preliminary contingency theoretical framework developed from the literature review. The chapter then discusses speculative implications of the contingency theoretical framework for practitioners (i.e., practical outcomes). On the basis of the contingency theoretical framework, some speculative recommendations are offered to policy makers, executive leaders and Human Resources practitioners. The chapter ends with a discussion of the empirical limitations of the research and the theoretical limitations of the contingency theoretical framework, as well as recommendations for further research in order to establish the descriptive and explanatory range capability of the contingency theoretical framework.

5.1 Overview

The research problem focused on the resolution of empirical, theoretical and practical debates in the context of the higher education industry in Western Canada with the elaboration of a contingency theoretical framework that would increase the range of description and explanation of interrelationships between the themes of changes in the external and internal strategic environment of the higher education industry (i.e., external and internal strategic analysis), strategy, executive leadership, organizational performance (i.e., strategic alignment), Management Control Systems and Human Resources.

The research questions were: (i) whether and how changes in the external and internal strategic environment of the higher education industry could be described and explained in terms of changes in governmental rules, competitive markets and organizational

culture; (ii) whether and how the strategic stance of higher education institutions, executive leadership and organizational performance were strategically aligned with a mediating role played by Management Control Systems; and (iii) whether and how the strategic stance of higher education institutions, executive leadership and organizational performance were strategically aligned with a mediating role played by Human Resources.

This research started with the review of the literature, as the researcher needed to be aware of, but not constrained to, the existing knowledge (Schreiber and Stern, 2001, pp.78-87; Charmaz, 2000, pp.509-535; Strauss and Corbin, 1998, p.18). Having reviewed the literature, the researcher categorised it into a range of themes and interrelationships in order to produce a preliminary theoretical framework. As such, the preliminary theoretical framework emerged from the themes and interrelationships existing in the literature review (Schreiber and Stern, 2001, pp.78-87; Charmaz, 2000, pp.509-535; Strauss and Corbin, 1998, p.18). The preliminary theoretical framework was a contingency theoretical framework with guiding propositions that were neither true nor false under every possible circumstance (i.e., exploratory relativist approach).

The researcher applied the preliminary contingency theoretical framework through the core themes and interrelationships extracted from the semi-structured interviews study, institutional documents study and the triangulation study. The research was undertaken in five phases. The first phase involved a pilot study. The second phase involved the Grounded Theory analysis of 20 semi-structured interviews of executive leaders from the higher education industry (i.e., primary data). The third phase involved the Grounded Theory analysis of institutional documents from 46 higher education institutions (i.e., secondary data). Emergent themes and interrelationships were extracted from the Grounded Theory analysis of the semi-structured interviews and the institutional documents. The fourth phase involved 9 informal interviews of executive leaders from the higher education industry to validate the findings from the Grounded Theory analysis. The fifth phase involved a triangulation study using descriptive univariate & bivariate statistics as well as other non-parametric statistics to further explore the core themes and their interrelationships. Guba and Lincoln (1998, pp.67-79)'s criteria were used to determine the rigour of the process in terms of trustworthiness and authenticity.

The comparison of the preliminary contingency theoretical framework with the empirical data led to the elaboration of an enhanced contingency theoretical framework. The enhanced theoretical framework was also a contingency theoretical framework with guiding propositions that were neither true nor false under every possible circumstance (i.e., exploratory and relativist approach).

5.2 Empirical Outcomes

The research focused on the literature overlaps between the themes of changes in the external and internal strategic environment of the higher education industry in Western Canada (i.e., external and internal strategic analysis), strategy, executive leadership, organizational performance (i.e., strategic alignment), Management Control Systems and Human Resources.

A first gap identified in the literature review was related to three empirical debates. The first empirical debate was linked to whether and how the higher education industry had changed on dimensions related to governmental rules, competitive markets and organizational culture, in a way that could be described and explained as related to “collegial managerialism”. The second empirical debate was linked to whether and how there was an interrelationship between strategy, executive leadership and organizational performance (i.e., strategic alignment) in a way that could be described and explained as mediated by Management Control Systems with a focus of strategic management and executive leadership success. The third empirical debate was linked to the whether and how there was an interrelationship between strategy, executive leadership and organizational performance (i.e., strategic alignment) in a way that could be described and explained as mediated by Human Resources with a focus on Strategic Human Capital. Please refer to the appendix section for a table that summarises the empirical findings in line with the literature (i.e., see Appendix V).

5.2.1 Empirical Outcome 1: Higher Education Industry

The first research question was related to whether and how changes in the higher education industry in Western Canada could be described and explained in terms of changes in governmental rules, competitive markets and organizational culture.

This first research question was linked to a first empirical debate on whether and how the higher education industry had changed on dimensions of governmental rules, competitive markets and organizational culture, in a way that could be described and explained as related to “collegial managerialism”.

One position was that the value of collegiality was more important than the value of strategic management in higher education institutions, because of the uniqueness of the industry (Mattei, 2009, p.21; Broadbent, Dietrich and Roberts, 1997, pp.1-13). Indeed, higher education institutions were generally public and non-profit institutions with policies (i.e., Roles & Mandates) directly impacting their practices. Firstly, the literature showed that the industry had specific characteristics that distinguished it from other industries (Fried and Hill, 2009, pp.35-43; Habib and Jungthirapanich, 2009, pp.25-38; Broadbent, 2007, pp.193-198; Bok, 2006, p.21; Hansmann and Kraakman, 2000, pp.387-440) as higher education institutions were mostly funded by governmental sources (Kekale, 2011, pp.556-563; Borosky and Grief, 2009, pp.113-120; Habib and Jungthirapanich, 2009, pp.25-38; Bolden, Petrov and Goslin, 2008, pp.257-277; Bush, 2007, p.391). Secondly, the literature showed that executive leadership in the industry had specific characteristics, since executive leadership was distributed among stakeholders (Meek *et. al.*, 2010, p.10; Bolden, Petrov and Goslin, 2008, pp.257-277), adhered to a philosophy of servant leadership and Corporate Social Responsibility (Tetrevova, 2010, pp.807-813; Borosky and Grief, 2009, pp.113-120; Collier and Esteban, 2007, pp.19-33; Carroll, 1999, pp.5-29) and tended to emerge from academic leaders who may not have had the skills necessary for strategic and operational management (Habib and Jungthirapanich, 2009, pp.25-38; Kekale, 2011, pp.556-563; Bolden, Petrov and Goslin, 2008, pp.257-277; Bush, 2007, p.391; Yelder and Codling, 2004, pp.315-328; Knight and Trowler, 2000; Law and Glover, 2000, p.8).

Another position was that a managerial approach to the industry (i.e., based on the principles of strategic management) was valuable, because strategic planning, strategy implementation and strategy evaluation were increasingly required to assist higher education institutions in their adaptation to changes in external and internal strategic environments (Bryman, 2007, p.693; Deem and Brehony, 2005, p.217; Broadbent, Dietrich and Roberts, 1997, pp.1-13). The literature showed that with the recent economic downturns, governmental funding had been limited and concerns with effectiveness and efficiency had been growing (Glass *et. al.*, 2009, pp.249-267; Gordon and Fisher, 2008, pp.217-255; Broadbent, 2007, pp.193-198). As a consequence, some argued that pressures on the higher education industry to be more managerial were impossible to ignore (Habib and Jungthirapanich, 2009, pp.25-38; Mattei, 2009, p.21; Fried, 2008, pp.15; Bok, 2006, p.21; Kezar, Carducci and Contreras, 2006, p.15; Deem and Brehony, 2005, p.217; Hansmann and Kraakman, 2000, pp.387-440). Business measures like endowments, tuition rates, enrolments, retention, accreditations, and financial tools like relative costs/revenues ratios were increasingly required as a means of assessing effectiveness and efficiency in the industry (DaConceicao DaCosta Marques and Mano, 2012, pp.303-315; Glass *et. al.*, 2009, pp.249-267; Gordon and Fisher, 2008, pp.217-255). Also, business models like for-profit models of the higher education industry were increasingly common place in North America, because for-profit models focused on new markets and investments performance (Fried and Hill, 2009, pp.35-43; Coleman and Vedder, 2008, p.18; Lerner, Schoar and Wang, 2008, pp.207-222).

In line with a collegial model of the industry, the findings of this research showed that executive leadership in higher education institutions in Western Canada was still largely distributed and servant as compared to other industries.

Firstly, the findings showed that executive leadership in higher education institutions was a leadership practice that was distributed and shaped by the interactions of all stakeholders (i.e., government, executive leaders, staff, faculty, students, business community, etc.) (Meek *et. al.*, 2010, p.10; Bolden, Petrov and Goslin, 2008, pp.257-277) and the environment (i.e., funding mechanisms, regulation mechanisms, audit mechanisms, customers' demands and institutional competition) rather than by the actions of one individual leader exclusively (Kezar, Carducci and Contreras, 2006, p.15; Yelder and Codling, 2004, pp.315-328; Knight and Trowler, 2001, pp.20-56). The findings showed that individuals, teams and executive leaders collectively influenced the strategic

directions in the higher education industry, making strategic management in this industry less successful as the majority had to agree for decisions to be implemented and for the institution to be strategically aligned (Bolden, Petrov and Goslin, 2008, pp.257-277). The findings also showed that the governance structure was largely a shared governance structure involving academics in the decisional process (Habib and Jungthirapanich, 2009, pp.25-38; Kekale, 2011, pp.556-563; Bolden, Petrov and Goslin, 2008, pp.257-277; Bush, 2007, p.391; Yelder and Codling, 2004, pp.315-328; Knight and Trowler, 2000; Law and Glover, 2000, p.8).

Secondly, the findings showed that executive leadership in higher education institutions was a leadership practice that focused on the aim of serving populations in the surrounding communities (Borosky and Grief, 2009, pp.113-120). The findings showed that executive leadership in higher education institutions was largely servant leadership as compared to other industries, which meant that executive leaders needed to serve the interests of the community (Borosky and Grief, 2009, pp.113-120). Indeed, the findings showed that Boards of Governors were mostly representing the government and the business community, and that they had a real ability to monitor executive leaders' hiring, performances and termination, as there was no CEO duality in the higher education industry (Faleye, 2007, pp.239-259; Worrell, Nemec and Davidson, 1997, pp.499-507; Finkelstein and D'Aveni, 1994, pp.1079-1108; Pi and Timme, 1993, pp.515-530; Rechner and Dalton, 1991, pp.155-161). These findings gave support to the idea that Stewardship and Corporate Social Responsibility were important for higher education institutions (Tetrevova, 2010, pp.807-813; Collier and Esteban, 2007, pp.19-33; Carroll, 1999, pp.5-29). Higher education institutions reported voluntary actions to contribute to the wider societal development (Tetrevova, 2010, pp.807-813; Collier and Esteban, 2007, pp.19-33; Carroll, 1999, pp.5-29).

In line with a managerial model of the industry, however, the findings of this research also showed that executive leadership in higher education institutions of Western Canada was increasingly managerial and entrepreneurial in order to comply with the pressures for accountability from the government (i.e., Management Control Systems).

Firstly, even if executive leaders' profiles were described as distributed and servant (i.e., most of all in the institutional documents), the semi-structured interviews study suggested that this may have been a façade, because the industry was actually moving towards a more managerial and entrepreneurial approach.

Secondly, even if promotion to senior positions in the higher education industry was still mostly based on an academic process resulting in the emergence of academic leaders, since most Presidents had a PhD and had been Chairs, Deans or Vice-Presidents before they became Presidents (Yielder and Codling, 2004, pp.315-328; Law and Glover, 2000, p.8), findings also showed that executive leaders were increasingly required to be skilled in strategic and operational management, business and financial acumen, connections with the government and the business community, and to have an entrepreneurial perspective on ways to find alternative sources of revenues for the institution (Bryman, 2007, pp.693-710; Kezar, Carducci and Contreras, 2006, p.45; Broadbent and Laughlin, 2005, pp.75-97; Deem and Brehony, 2005, p.217; Broadbent, Dietrich and Roberts, 1997, pp.1-13).

Thirdly, the findings showed that business and financial measures were increasingly required as a means of measuring effectiveness and efficiency in the higher education industry, with outcomes related to FTE students and operating grants or cost efficiency performance (DaConceicao DaCosta Marques and Mano, 2012, pp.303-315; Gordon and Fisher, 2008, pp.217-255; Broadbent, 2007, pp.193-198; Otley, 1999, pp.363-382). As such, findings showed that higher education institutions constantly needed to evaluate how research and teaching outcomes compared to research and teaching costs to the government in order to guarantee their viability in terms of effectiveness and efficiency (Glass *et. al.*, 2009, pp.249-267).

As a summary, the findings contributed to the empirical debate on the changes in the higher education industry by showing that a “collegial managerialism” model could be successful in describing and explaining the higher education industry in Western Canada, with the habit of having academics elevated to leadership positions combined with administrative and managerial practices (Broadbent, Dietrich and Roberts, 1997, pp.1-13). This meant that higher education institutions in Western Canada were combining the

basic elements of strategic management with the unique characteristics of the industry in terms of academia, collegiality, shared governance, distributed and servant leadership practises (Gunter and Forester, 2009, pp.349-369). By clearly understanding the pressures for changes and its uniqueness, the higher education industry in Western Canada developed a managerial and entrepreneurial energy that both seemed to compete with and compliment the academic community (Deem and Brehony, 2005, p.217; Broadbent and Laughlin, 1997, pp.487-507).

5.2.2 Empirical Outcome 2: Management Control Systems

The second research question was whether and how the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance were aligned with a mediating role played by Management Control Systems.

This research question was related to a second empirical debate on whether and how there was an interrelationship between strategy, executive leadership and organizational performance (i.e., strategic alignment) in a way that could be described and explained as related to strategic management by executive leaders.

One position was that strategic management by executive leaders was a pre-requisite for improved organizational performance to be observed (Hatry, 2006, p.11). Firstly, strategic management was described as the process that led to the synchronization of the goals of an organization with implementation plans developed for different functional areas of an organization, like finance, operation, Human Resources, etc., to be aligned (Christiansen and Higgs, 2008, pp.13-33; Kaplan and Norton, 2006, pp.167-176). Strategic thinking of executive leaders was described as a complex process which involved the most sophisticated elements of human judgment to adapt to the high levels of internal and external complexity of the business environment (Mintzberg *et. al.*, 2003, pp.14-22). As such, when applying strategic management principles, executive leaders were logically expected to be more effective and efficient in complying with the demands of internal and external factors (Franken, Edwards and Lambert, 2009, pp.49-73; Peter and Smith, 1998, pp.284-291; Makridakis, 1996, pp.1-43; Peters and Waterman, 1982, p.11). Secondly, the influence of executive leaders on organizational performance,

organisational commitment and organizational satisfaction had been well established empirically (Ekaterini 2010, pp.14-16; Lichtenstein and Dade, 2007, pp.15-31; Vries, Roe and Taillieu, 1998, pp.486-501; Cairns, 1996, p.115; Drucker 1973, p.18). As such, executive leadership was logically expected to have a positive impact on effectiveness and efficiency indicators within the higher education industry (Kezar, Carducci and Contreras, 2006, p.15).

Another position was that strategic management by executive leaders did not necessarily help dealing with the high level of ambiguity of the business environment and as such did not necessarily improve organizational performance. Firstly, cognitive limits and self-serving motivations precluded executive leaders from developing a realistic understanding of their industry (Nadkarni and Barr, 2008, pp.1395-1427; Fiol and O'Connor, 2003, pp.54-70; Bogner and Barr, 2000, pp.212-226; Daft, Sormunen and Parks, 1988, pp.123-139) and executive leaders tended to develop biased subjective representations which became the basis for their biased strategic planning, strategy implementation and strategy evaluation. As such, executive leaders' biased subjective representations, not the objective external and internal strategic environment, affected the institutions strategic priorities and decisions in a way that was logically expected to be ineffective and inefficient since it was biased (Fiol and O'Connor, 2003, pp.54-70; Bogner and Barr, 2000, pp.212-226; Daft, Sormunen and Parks, 1988, pp.123-139). Secondly, executive leaders' influence on organizational performance was limited by environmental, organizational and legitimacy constraints (Hannan and Freeman, 1984, pp.149-164; DiMaggio and Powell, 1983, pp.147-160; Pfeffer and Salancik, 1978, p.48). As such, the impact of executive leadership was logically expected to be modest at best (Finkelstein and Hambrick, 1996, p.23) because factors outside the control of a single individual mediated the impact of executive leadership on organizational performance (Crossland and Hambrick, 2007, pp.767-789; Hatry, 2006, p.11; Podolny, Khurana and Hill-Popper, 2005, pp.1-36).

In line with the perspective that strategic management by executive leaders did not necessarily help dealing with the high level of ambiguity of the business environment and did not necessarily improve organizational performance, the findings showed that the characteristics of higher education institutions in Western Canada changed primarily as a function of government's policy. Indeed, the findings of this research showed that the Roles & Mandates as defined by the government were more strongly interrelated with a

series of characteristics within the institutions than strategic management by executive leaders.

Firstly, the findings showed that the more comprehensive the Roles & Mandates of the institutions (i.e., Strategic Stance), the more comprehensive the strategy of the programs and the strategy of the research, the higher the number of elected internal members sitting on the Board of Governors as opposed to external members, the higher the credentials of the President and the more prestigious the title of the President, the higher the level of operating grant, the higher the number of FTE students, and the more strategically involved the Human Resources department. These findings highlighted a strong interrelationship between the strategic stance of the institution as per Roles & Mandates and the characteristics of the institution in terms of strategy, executive leadership, organizational performance, Management Control Systems and strategic involvement of Human Resources. These findings also showed that, in higher education institutions in Western Canada, the interrelationships between the strategic stance of the institution as per Role & Mandates and the characteristics of the institution in terms of strategy, executive leadership, organizational performance, Management Control Systems and strategic involvement of Human Resources, was a one-way, top-down, government-to-institution process, with little actual feedback loop from the institution to the government. There was a lack of formal and informal feedback process from executive leaders to the government. At a formal level, institutional documents were created more to demonstrate compliance to the Roles & Mandates than to give an actual feedback to the government and/or to the community. At an informal level, Presidents had to interact with their Members of the Legislative Assembly just like any other citizen to try to influence their Minister. Institutions in this research seemed to mostly focus on “deviously” complying with the demands of the government and associated Management Control Systems (Franken, Edwards and Lambert, 2009, pp.49-73; Makridakis, 1996, pp.1-43; Peters and Waterman, 1982, p.11). As such, strategic management in this context was biased (Fiol and O’Connor, 2003, pp.54-70; Bogner and Barr, 2000, pp.212-226; Daft, Sormunen and Parks, 1988, pp.123-139) as cognitive limits and/or motivational factors precluded executive leaders from reporting information in a “candid” manner (Nadkarni and Barr, 2008, pp.1395-1427; Fiol and O’Connor, 2003, pp.54-70; Bogner and Barr, 2000, pp.212-226; Daft, Sormunen and Parks, 1988, pp.123-139).

Secondly, the findings did not show that strategic management by executive leaders were interrelated with the characteristics of the institutions. This finding supported the idea that the impact of strategic management by executive leaders on a series of characteristics including organizational performance was modest at best (Finkelstein and Hambrick, 1996, p.23). It also supported the idea that the impact of strategic management by executive leaders on a series of characteristics including organizational performance was related to factors outside the control of a single individual or of the Top Management Team (Crossland and Hambrick, 2007, pp.767-789; Hatry, 2006, p.11; Podolny, Khurana and Hill-Popper, 2005, pp.1-36; Finkelstein and Hambrick, 1996, p.23) since it was limited by environmental, organizational and legitimacy constraints like the Roles & Mandates (Hannan and Freeman, 1984, pp.149-164; DiMaggio and Powell, 1983, pp.147-160; Pfeffer and Salancik, 1978, p.48).

As a summary, the findings contributed to the empirical debate on strategic management by executive leaders. Indeed, the findings showed that strategic management by executive leaders was not the most important factor to increase effectiveness and efficiency in the higher education industry in Western Canada. Institutions in this research “deviously” complied with the demands of the government and associated Management Control Systems (Franken, Edwards and Lambert, 2009, pp.49-73; Broadbent, 2007, pp.193-198; Makridakis, 1996, pp.1-43; Peters and Waterman, 1982, p.11).

5.2.3 Empirical Outcome 3: Human Resources

The third research question was whether and how the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance were strategically aligned with a mediating role played by Human Resources.

This research question was related to a third empirical debate on whether and how the strategic stance of the higher education institutions, executive leadership and organizational performance, were aligned in a way that could be described and explained as being related to strategic Human Resources as opposed to transactional Human Resources.

One position was that interventions from Human Resources helped select and develop executive leaders' capabilities to turn them into functionalities aligned with the strategy of the organization. Firstly, the literature suggested that strategically aligned succession management programs could be set up by the Human Resources department to internally identify and develop people with the potential to fill executive leadership positions in the organization. The process could be very effective if Human Resources were able to bring reliability and validity to an inherently subjective process (Arnone, 2010, pp.27-28; Conlon and Smith, 2010, pp.53-55; Goleman, 2009, pp.78-90; Ohlott, 2004, pp.151-182; McCauley, Eastman and Ohlott, 1995, pp.93-115). Secondly, the literature suggested that executive leaders strategically aligned recruitment and development programs could be set up by the Human Resources department. The process could also be very effective if Human Resources could focus on the capabilities of executive leaders and the strategic alignment of these capabilities with the organization to turn them into functionings (Lamoureux, 2010, pp.38-39; Gupta and Wasylyshyr, 2009, pp.37-41; Albers-Mohrman and Worley, 2009, pp.431-443; Conger and Fishel, 2007, pp.442-454; Lawler and Worley, 2006, pp.1-5; Menkes, 2006, pp.51-56; Beer, 2001, pp.233-247). Lastly, the literature suggested that a wide range of strategic Human Resource management systems existed, such as systems for control of commitment (Arthur, 1992, pp.488-506), high involvement (MacDuffie, 1995, pp.197-221), strategic human capital enhancement and administration (Youndt *et. al.*, 1996, pp.836-866), market based updates (Delery and Doty, 1996, pp.802-835), productivity, compliance, commitment (Lepak and Snell, 2002, pp.517-543), employees' performance management and collective agreements negotiation (Huselid, 1995, pp.635-672). This meant that Human Resources could be a useful department for the setting up of strategic processes aligned with the goals of the organization (Chaserio and Legault, 2009, pp.1113-1131; Mathis, Jackson and Zinni, 2008, pp.11-56; Martin-Alcazar, Romero-Fernandez and Sanchez- Gardey, 2005, pp.213-241).

Another position was that before Human Resources could optimize skills development, reward planning, quality of life and talent management, they needed to make the link between people and profits as well as to translate business goals into workforce needs and workforce needs into business goals (Stopper, 2010, pp.11-13; Becton and Schraeder, 2009, pp.11-18; Mathis, Jackson and Zinni, 2008, pp.11-56). This meant that Human Resources needed to move away from transactional work to a strategic approach concerned with the long-term objectives and performance of the organization. Becton

and Schraeder (2009, p.11) suggested that key changes needed to be made by Human Resources to become strategic, like the outsourcing and automating of transactional activities to be able to focus on strategic activities that helped shape organizational achievements and the development of their own skills and competencies to increase their functioning related to strategic management (Becton and Schraeder, 2009, pp.11-18).

In line with the perspective that Human Resources needed to go through a transformational process to move away from a transactional approach to a strategic approach of their practise, the findings showed that, for a majority of higher education institutions in Western Canada (i.e., 63%), there was no mediating role played by Human Resources in the functional interrelationship between the strategic stance of higher education institutions, executive leadership and organizational performance (i.e., strategic alignment) (Stopper, 2010, pp.11-13; Becton and Schraeder, 2009, pp.11-18; Mathis, Jackson and Zinni, 2008, pp.11-56).

Firstly, the findings showed that the Human Resources department was not involved in the recruitment and development of executive leaders because of the potential for conflict of interests if a candidate that they did not favour was to be selected as President and because the President was primarily the employee of the Board of Governors not the employee of the institution (Stopper, 2010, pp.11-13; Becton and Schraeder, 2009, pp.11-18; Mathis, Jackson and Zinni, 2008, pp.11-56).

Secondly, findings showed that the strategic involvement of the Human Resources department was dependent on the Roles & Mandates of the institutions (i.e., Strategic Stance), since the more comprehensive the institution the more strategic the Human Resources department. The findings also showed that the strategic involvement of Human Resources was dependent on the reporting level to the President and their inclusion in the Top Management Team. It was believed that the more comprehensive the institution, the greater the level of internal resources dedicated to the Human Resources department to dissociate transactional and strategic functions within the department, and the more the President would recognise the strategic value of the department with a positive impact on the reporting level and the inclusion of Human Resources in the Top Management Team (Becton and Schraeder, 2009, pp.11-18).

Thirdly, the findings showed that when the Human Resources department was considered strategic, they were involved in a wide range of processes leading to strategic alignment, from the recruitment (Heggestad *et. al.*, 2006, pp.9-24; Meade, 1994, pp.531-552; Cattell and Brennan, 1994, pp.261-274; Johnson, Wood and Blinkhorn, 1989, pp.153-162) and development (Dragoni *et. al.*, 2009, pp.731-743; Hooijberg and Lane, 2009, pp.483-493; Blacker and Kennedy, 2004, pp.181-204) of executive leaders, faculty and staff (Lamoureux, 2010, pp.38-39; Gupta and Wasylyshyr, 2009, pp.37-41; Albers-Mohrman and Worley, 2009, pp.431-443; Conger and Fishel, 2007, pp.442-454; Lawler and Worley, 2006, pp.1-5; Menkes, 2006, pp.51-56; Beer, 2001, pp.233-247) to the implementation of individual performance management systems and the negotiation of collective agreements (Becton and Schraeder, 2009, pp.11-18; Gratton and Ghoshal, 2003, pp.1-10; Garavan *et. al.*, 2001; Lepak, and Snell, 1999; Delery and Doty, 1996, pp.802-835; Wright and McMahan, 1992, pp.295-320) in line with the strategy of the organization (Chaserio and Legault, 2009, pp.1113-1131; Mathis, Jackson and Zinni, 2008, pp.11-56; Martin-Alcazar, Romero-Fernandez and Sanchez-Gardey, 2005, pp.213-241).

As a summary, the findings contributed to the empirical debate on the strategic role of Human Resources in the higher education industry in Western Canada. Indeed, in line with the perspective that Human Resources still needed to go through a transformation themselves before they could become strategic, findings showed that for the majority of higher education institutions in Western Canada there was no real involvement of Human Resources in the strategic alignment of the higher education institution (Becton and Schraeder, 2009, pp.11-18; Conger and Fishel, 2007, pp.442-454). In fact, findings showed that Human Resources rarely played any role in any strategic or executive leadership matter. Instead most strategic and executive leadership matters were dealt with by the Board of Governors who generally had no actual knowledge of how to recruit, develop or strategically align executive leaders and institutions. However, findings also demonstrated a push to move away from this transactional model of Human Resources towards a strategic model of Human Resources in the higher education industry in Western Canada, most of all in comprehensive institutions as per Roles & Mandates (Stopper, 2010, pp.11-13; Becton and Schraeder, 2009, pp.11-18; Mathis, Jackson and Zinni, 2008, pp.11-56).

5.3 Theoretical Outcomes

The research focused on the literature overlaps and gaps between the themes of changes in the external and internal strategic environment of the higher education industry in Western Canada (i.e., external and internal strategic analysis), strategy, executive leadership, organizational performance (i.e., strategic alignment), Management Control Systems and Human Resources.

A second gap identified in the literature review was that scholars had mostly focused on descriptive studies addressing the questions of the “whom, when and where” of changes in the higher education industry, strategy, executive leadership and organizational performance. The fact that research in this area was overly descriptive inhibited the development of a theoretical framework (Osborne, Stubbart and Ramaprasad, 2001, pp.435-454; Reger and Palmer, 1991, pp.22-39; Fiske and Taylor, 1991, p.45; Daft, Sormunen and Parks, 1988, pp.123-139). Despite recent efforts to increase the amount of research related to the “whether and how”, this type of research remained scarce (McNally, 2009, p.34; Kan, 2002, p.56; Ospina and Schall, 2001, p.4; Conger and Kanungo, 1998, p.45; Irurita, 1996, pp.89-95; Miles and Hebertson, 1994, pp.45).

Addressing the theoretical questions of “how” of changes in the higher education industry, strategy, executive leadership, organizational performance, Management Control Systems and Human Resources, led to a more systematic and theorised examination of these themes and their interrelationships, and ultimately to the development of a contingency theoretical framework (Meek *et. al.*, 2010, p.10; Berry *et. al.*, 2009, pp.2-20). Please refer to the appendix section for a table that summarises the theoretical findings in line with the literature (i.e., see Appendix V).

5.3.1 Theoretical Outcome 1: Higher Education Industry

The first research question was related to whether and how changes in the higher education industry in Western Canada could be described and explained in terms of changes in governmental rules, competitive markets and organizational culture.

The whether and how of changes in external and internal strategic environment of the higher education industry in Western Canada, was analysed in relation to a theoretical framework that adopted assumptions about contingencies.

Changes in the higher education industry were believed to follow the contingencies of the institution with phases of evolution shaping their institutional states (Malni and Brown, 2008, pp.287-300; Portnoff, 2007, p.15; Cameron and Quinn, 2006, p.23). Depending on the contingencies of the institution, executive leaders were believed to rely on rule-based, market-based, or culture-based control systems (Berry *et. al.*, 2009, pp.2-20; Malni and Brown, 2008, pp.287-300; Portnoff, 2007, p.15; Bakar and Berry, 1993, pp.55-63; Lebas and Weigenstein, 1986, pp.259-272; Ouchi 1980, pp.129-141).

Therefore, a central focus of the contingency theoretical framework was to describe and explain the impact of changes in external and internal strategic environment of the higher education industry in Western Canada (i.e., external and internal strategic analysis) on dimensions of governmental rules, competitive markets and organizational culture (Portnoff, 2007, p.15; Cameron and Quinn, 2006, p.23; Bakar and Berry, 1993, pp.55-63; Lebas and Weigenstein, 1986, pp.259-272; Ouchi 1980, pp.129-141).

The findings showed that there were some changes in terms of the governmental rules in the higher education industry in Western Canada, and that these changes were related to changes in the organisational culture and in the focus on competitive markets, even if the focus on organizational culture and competitive markets seemed to be secondary to the focus on governmental rules.

Firstly, the findings showed that the current trends in terms of governmental rules in the higher education industry in Western Canada leaned toward decreased levels of funding from the government and increased levels of commercialization or privatization (Mattei, 2009, p.21; Broadbent and Laughlin, 2005, pp.75-97; Deem and Brehony, 2005, pp.217-235). The findings showed that donation revenues obtained from sponsored research, local businesses and donating agencies, were now considered major indicators of the success of higher education institutions. Part of the problem was the decline of government support for higher education institutions, since the grants coming from the government had been decreasing comparatively to the increase in costs of the institutions (Meek *et. al.*, 2010, p.10; Alberta Advanced Education, 2007, p.1). Consequently, many

higher education institutions had no choice but to reposition themselves in collaborative partnerships with the business community in order to get private sources of revenue (Broadbent and Laughlin, 2005, pp.75-97; Deem and Brehony, 2005, p.217; Jones, Skolnik and Soren, 1998, pp.15-27). Many higher education institutions also had no choice but to reduce the number of available courses or research programs in areas associated with little financial return, and use data driven programs prioritization strategies to review which programs merited support on the basis of costs per FTE student measures, demographic changes measures and/or governmental priorities (Deem and Brehony, 2005, pp.217-235; Washburn, 2005, p.23).

Secondly, the findings showed that current trends in terms of organizational culture in the higher education industry in Western Canada leaned toward an increased level of hiring of administrators from within the ranks of the private sector, not chosen only for their academic & administrative experience, but also for the way they served on the Boards of Directors or at executive levels in large corporations (Cameron and Quinn, 2006, p.23; Kezar, Carducci and Contreras, 2006, p.67). The findings showed that Presidents-CEOs of publicly funded higher education institutions were increasingly displaying a managerial style and placing less value on the intellectual and non-commercial tradition of their institution than on the financially lucrative programs and research synchronized to the needs of the business community (Bryman, 2007, pp.693-710; Deem and Brehony, 2005, p.217; Amaral, Meek and Larsen, 2003, pp.10-15; Meek, 2003, pp.1-29; Teichler, 2003, pp.171-185; Reed, 2002, pp.23-34; Enders, 2001, pp.1-23; Trowler, 1998, p.12; Clarke and Newman, 1997, p.15). The consequence of this culture shift of higher education institutions was a tension between those who encouraged the new entrepreneurial and managerial spirit of the higher education industry and those who perceived the collaboration between the higher education industry and the private sector as weakening academic freedom and the very nature of higher education as a social enterprise (Meek *et. al.*, 2010, p.256; Jones, Skolnik and Soren, 1998, pp.15-27; Broadbent, Dietrich and Roberts, 1997, pp.1-13).

Thirdly, the findings showed that current trends in terms of competitive markets of the higher education industry in Western Canada leaned towards an increased level of competition between institutions, and the need to find new market opportunities with wider nets targeted at the recruitment of students outside the traditional area of focus (i.e., local to provincial, national and international) and new teaching models to reach out to

this wider net of students (i.e., blended and online learning) and to reduce operating costs (Fried and Hill, 2009, pp.35-43; Coleman and Vedder, 2008, p.18; Fried, 2008, pp.15; Lerner, Schoar and Wang, 2008, pp.207-222).

As a summary, the findings demonstrated a theoretical focus on rule-based, culture-based and market-based control systems (Berry *et. al.*, 2009, pp.2-20; Cameron and Quinn, 2006, p.23; Bakar and Berry, 1993, pp.55-63; Lebas and Weigenstein, 1986, pp.259-272) with a stronger emphasis on rule-based control systems. This stronger emphasis on the rule-based control system could be explained using the theory of Lebas and Weigenstein (1986, p.259). Indeed, Lebas and Weigenstein (1986, p.259) believed a stronger focus on rule-based controls to be the best alternative for organizations which had established clear relationships between principals (i.e., government) and agents (i.e., higher education institution), a stronger focus on culture-based control to be the best alternative where environmental uncertainties were high, and a stronger focus on market-based control to be the best alternative for organizations operating in a decentralized and autonomous manner. Since the higher education industry in Western Canada focused on its tightly defined interrelationships with the government (i.e., centralised Management Control Systems), the finding that the selected higher education institutions focused more on rule-based than culture-based and market-based control systems was not surprising (Lebas and Weigenstein, 1986, pp.259-272). Since the higher education industry in Western Canada was not decentralised and/or autonomous from the government, it was logical that the selected higher education institutions would not focus on market-based controls systems as much as on rule-based control systems (Lebas and Weigenstein, 1986, pp.259-272). In this context, the government used steering media in terms of regulations and provisions of funding to achieve specific societal goals with higher education institutions (Broadbent, Laughlin and Alvani-Starr, 2010, pp.461-473) within a principal-agent relationship where the payoff from the principal (i.e., government) depended on the actions taken by the agent (i.e., higher education institutions) (Broadbent, Dietrich and Laughlin, 1996, pp.259-284; Williamson, 1991, pp.75-94). Steering media were societal key drivers for changes (Habermas, 1997, p.367) that implied the use of positional power and/or incentives to initiate actions at the institutional level (Broadbent, Laughlin and Alvani-Starr, 2010, p.463). In other words, funding from higher education institutions in Western Canada was provided under a steering media of Roles & Mandates and Letters of Expectations in exchange for funding, with only limited discretion for higher education

institutions to decide whether and how the funds may be used (Broadbent, Laughlin and Alvani-Starr, 2010, pp.461-473).

5.3.2 Theoretical Outcome 2: Management Control Systems

The second research question was whether and how the strategic stance of the higher education institutions in Western Canada, executive leadership and organizational performance were aligned with a mediating role played by Management Control Systems.

The whether and how the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance were strategically aligned with a mediating role played by Management Control Systems, was analysed in relation to a theoretical framework that adopted assumptions about Management Control Systems (Berry *et. al.*, 2009, pp.2-20; Malni and Brown, 2008, pp.287-300; Anthony and Govindarajan, 2007, p.5; Radnor and Barnes, 2007, pp.384-396, Cameron and Quinn, 2006, p.23; Berry, Broadbent and Otley, 2005, p.6; Delery and Shaw, 2001, pp.67-78).

The pressure for accountability imposed by the government was believed to be related to Management Control Systems with a battery of indicators developed to monitor performance in a qualitative and quantitative manner. These Management Control Systems were believed to be integrated systems where performance information was closely linked to a managerial and strategic management approach, with a measurement stage, a reporting stage and an evaluation stage (Radnor and Barnes, 2007, pp.384-396).

Therefore, a central focus of the contingency theoretical framework was to describe and explain the impact of changes in the higher education industry in Western Canada on the strategy, executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Management Control Systems.

The findings showed that there was a functional interrelationship between the strategic stance of higher education institutions, executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Management Control Systems (Malni and Brown, 2008, pp.287-300; Anthony and Govindarajan, 2007,

p.5; Radnor and Barnes, 2007, pp.384-396, Cameron and Quinn, 2006, p.23; Berry, Broadbent and Otley, 2005, p.6; Delery and Shaw, 2001, pp.67-78).

Firstly, changes in the strategic stance of higher education institutions were shown to impact the governance structure and the executive leadership profile inside the institution with a more managerial and governance related approach to the higher education industry (Habib and Jungthirapanich, 2009, pp.25-38, Fried, 2008, pp.15; Broadbent, 2007, pp.193-198; Bok, 2006, p.21; Hansmann and Kraakman, 2000, pp.387-440). Even if the governance structure was still largely shared governance, the executive leaders' profile was less distributed (i.e., or more distributed as a facade), less servant (i.e., or more servant as a facade), less academic (i.e., even if most Presidents had a PhD with previous experience in education), and more entrepreneurial and managerial (i.e., Presidents were more often described as CEOs with strong strategic management skills, business acumen and entrepreneurial skills) than in the past (Bryman, 2007, pp.693-710; Deem and Brehony, 2005, p.217; Amaral, Meek and Larsen, 2003, pp.10-15; Meek, 2003, pp.1-29; Teichler, 2003, pp.171-185; Reed, 2002, pp.23-34; Enders, 2001, pp.1-23; Trowler, 1998, p.12; Clarke and Newman, 1997, p.15) in order to deal with the increased pressure for compliance to the government's policies (i.e., Management Control Systems).

Secondly, changes in the strategic stance (i.e., Roles & Mandates) were shown to be related to an increased pressure for accountability in terms of effectiveness and efficiency. Indeed, the findings showed that with the recent economic downturns, concerns with effectiveness and efficiency had been growing (Glass *et. al.*, 2009, pp.249-267; Gordon and Fisher, 2008, pp.217-255; Broadbent, 2007, pp.193-198). Many of the selected higher education institutions focused on developing performance indicators that had become increasingly systematic, specialized, professionalized and institutionalized (Bouckaert and Halligna 2006, p.16).

Thirdly, the findings highlighted an inconsistency between the findings obtained through the semi-structured interviews and the findings obtained through the institutional documents. Indeed, Management Control Systems were described as paramount with institutions strongly focusing on demonstrating accountability in the institutional documents study, whereas Management Control Systems were described as "more of a show for the community and the government" than an actual compliance in the semi-structured interviews study. This inconsistency between the results from the semi-

structured interviews study and the institutional documents study highlighted an issue of “devious compliance”. The findings of the institutional documents study showed that any decrease in precision provided executive leaders with latitude in over-interpreting evidence in a self-serving way that deviously demonstrated compliance whether or not the institution was in fact compliant (Ittner and Larcker, 2003, pp.88-95). An executive leader in search of preference-consistent information could find a reasonable amount of supportive data and stop searching or disregard disconfirming evidence (Ittner and Larcker, 2003, pp.88-95). If performance management tools were ambiguous or complex enough to allow different assessments of success for strategic initiatives, executive leaders with “devious compliance” preferences would be reaching for “devious conclusions” (Ittner and Larcker, 2003, pp.88-95; Ittner and Larcker, 1997, pp.522-534; Ittner and Larcker, 1995, pp.1-3).

As a summary, these findings could be explained using Management Control Systems (Berry *et. al.*, 2009, pp.2-20; Malni and Brown, 2008, pp.287-300; Anthony and Govindarajan, 2007, p.5; Radnor and Barnes, 2007, pp.384-396, Cameron and Quinn, 2006, p.23; Berry, Broadbent and Otley, 2005, p.6; Delery and Shaw, 2001, pp.67-78), since Management Control Systems were indeed in use in the selected higher education institutions in Western Canada. Higher education institutions were using these integrated systems where performance information was closely linked to a strategic management process including a measurement stage, a reporting stage and an evaluation stage (Radnor and Barnes, 2007, pp.384-396). Interestingly, however, the findings showed that the use of Management Control Systems in the higher education industry in Western Canada may just have led to “devious compliance”. Higher education institutions may just have displayed compliance, because they were expected to do so by the government and the community, but the meaningful value of this “devious compliance” may have in fact been limited with some biased selection of criteria to “look good” in the annual reports. From this perspective, institutional documents ultimately failed to convey any noteworthy sense in terms of the usefulness of Management Control Systems in the higher education in Western Canada (Morphew and Hartley, 2006, pp.456-471; Delucchi, 1997, pp.414-426; Newsom and Hayes, 1991, pp.190-191; Davies, 1986, pp.34-67). This difference could be explained using the distinction between hard and soft Management Control Systems proposed by Berry, Broadbent and Otley (2005, p.13), with the potential co-existence of: (i) hard Management Control Systems promoting clear objectives and decision processes

associated to quantitative measures of performance (e.g., accounting standards); and (ii) soft Management Control Systems promoting vague objectives and decisions processes associated to ill-defined and qualitative measures of performance (e.g., deviation from accounting standards). In this context, the government used steering media in terms of regulations and provision of funding to achieve specific societal goals with higher education institutions (Broadbent, Laughlin and Alvani-Starr, 2010, pp.461-473) within a principal-agent relationship where the payoff from the principal (i.e., government) depended on the actions taken by the agent (i.e., higher education institutions) (Broadbent, Dietrich and Laughlin, 1996, pp.259-284; Williamson, 1991, pp.75-94). This meant that there was a real impact of accounting systems at both a societal level (Habermas, 1987) and an institutional level (Broadbent, 2011, p.264) with: (i) performance management systems as steering mechanisms; (ii) structures of the government like Role & Mandates and Letters of Expectations; and (iii) financial stringencies (Broadbent, 2011, p.264-277). However, these steering media were ineffective and inefficient in terms of the level of strategic planning and funding offered by the government (Auditor General, 2013, p.49) and led to resistance, deviance and opportunistic behaviours. This also meant that there was a colonization of accounting systems with only instrumental obedience (i.e., “devious compliance” from higher education institutions without any actual change to interpretive schemes and behaviours) (Oakes and Berry, 2009, pp.343-375). When the logic of the principal-agent relationship was a logic of domination (i.e., where the government was just seeking to legitimate its position), a typical consequence was that information was hidden as a way to resist domination (i.e., information asymmetry came from the fact that the information was in the hands of the higher education institutions that were dominated by the government) which resulted in differences between the stated (i.e., institutional documents) and the enacted (i.e., in semi-structured interviews) strategy.

5.3.3 Theoretical Outcome 3: Human Resources

The third research question was whether and how the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance were strategically aligned with a mediating role played by Human Resources.

The whether and how the strategic stance of the higher education institutions in Western Canada, executive leadership and organizational performance were strategically aligned with a mediating role played by Human Resources, was analysed in relation to a theoretical framework that adopted assumptions about Strategic Human Capital (Wright, Gardner, Moynihan and Allen, 2005, pp.409-446).

To promote an alignment of executive leadership, faculty and staff, there was a need for recruitment to involve the notion of strategic person-organization fit. Selection was thus offered as a form of input control that was well suited to situations involving incomplete knowledge of cause/effect relationships or ambiguous standards of desirable performances for the organization (Conger and Fishel, 2007, pp.442-454; Spekle, 2001, pp.419-441; Snell and Dean, 1992, pp.467-504; Ouchi, 1980, pp.129-141).

To promote an alignment of executive leaders, faculty and staff, there was also a need for development to involve the notion of strategic person-job fit. Once executive leaders, faculty and staff had been hired, socialization could begin as a form of output control that was best suited to situations involving complete knowledge of cause/effect relations or non-ambiguous standards of desirable performances for the job (Conger and Fishel, 2007, pp.442-454; Spekle, 2001, pp.419-441; Snell and Dean, 1992, pp.467-504; Ouchi, 1980, pp.129-141).

Therefore, a central focus of the contingency theoretical framework was to describe and explain the impact of changes in the higher education industry in Western Canada on the strategy, executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by a strategic Human Resources department (Conger and Fishel, 2007, pp.442-454).

The findings showed that, for most higher education institutions, there was no mediating role played by the Human Resources department in the functional interrelationship

between the strategic stance, executive leadership and organizational performance (i.e., strategic alignment). Indeed, the findings showed that, for most higher education institutions in Western Canada, Human Resources were not involved in the recruitment and development of executive leaders. When Human Resources were playing a strategic role, it was mostly for recruitment and development purposes in general, performance management systems and negotiation of the collective agreements. Most Human Resources departments did not have a strategic plan.

As a summary, the finding that Human Resources were not strategically involved in most higher education institutions in Western Canada could be explained using the theory of Lebas and Weigenstein (1986, pp.259-272). Indeed, Lebas and Weigenstein (1986, pp.259-272) argued that an organization relied on different Management Control Systems (e.g., reliance on standardized procedures to monitor outcomes and performance) depending on the level of behavioural certainty in the environment. In environments characterised by behavioural certainty (i.e., high understanding of the input/process/output with knowledge of cause/effect relations or non-ambiguous standards of desirable performances), organizations relied on Strategic Human Capital instead of Management Control Systems to reduce transaction costs (e.g., turn-over) associated with opportunism (Spicer and Ballew, 1983, pp.73-96). In environments characterised by behavioural uncertainty, organizations relied on Management Control Systems instead of Strategic Human Capital (Spicer and Ballew, 1983, pp.73-96). As such, the findings of this research were not surprising, since in environments characterised by behavioural uncertainty (i.e., with the Human Resources department not reporting directly to the President and as such not strategically involved in the alignment of work ethic, managerial style and organizational culture), higher education institutions were to rely on Management Control Systems more than on Strategic Human Capital (Lebas and Weigenstein 1986, pp.259-272, pp.259-272; Spicer and Ballew, 1983, pp.73-96). In this context, the government used steering media in terms of regulations and provision of funding to achieve specific societal goals with higher education institutions (Broadbent, Laughlin and Alvani-Starr, 2010, pp.461-473), but these steering media led to resistance, deviance and opportunistic behaviours because there was no attempt to formally align work ethic, managerial style and organizational culture by the Human Resources department.

5.4 Contingency Theoretical Framework

Based on the literature review, a preliminary contingency theoretical framework was developed to serve as a theoretical stance for the empirical research. The preliminary contingency theoretical framework developed from the literature review contained the following propositions:

- Proposition 1: Changes in the external and internal strategic environment of the higher education industry can be described and explained in terms of changes in governmental rules, competitive markets and organizational culture.
- Proposition 2: Strategic stance of higher education institutions, executive leadership and organizational performance can be described and explained as strategically aligned with a mediating role played by Management Control Systems. Strategic alignment can be described and explained as impacting strategic stance, executive leadership and organizational performance with multiple feedback loops. Strategic management by executive leaders can be described and explained as impacting organizational performance.
- Proposition 3: Strategic stance of higher education institutions, executive leadership and organizational performance can be described and explained as strategically aligned with a mediating role played by Human Resources.

The preliminary contingency theoretical framework was then compared with the findings from the empirical stage. The outcome was an enhanced contingency theoretical framework that described and explained the interrelationships existing between changes in the external and internal strategic environment of the higher education industry in Western Canada, strategy, executive leadership, organizational performance, Management Control Systems and Human Resources.

5.4.1 *Proposition 1: Higher Education Industry*

In line with the preliminary contingency theoretical framework developed from the literature review, the contingency theoretical framework extracted from the data proposed that changes in the external and internal strategic environment of the higher education industry in Western Canada could be described and explained in terms of changes in governmental rules, competitive markets and organizational culture. In addition, since

the higher education industry in Western Canada clearly focused on its tightly defined and centralised relationships with the government, the contingency theoretical framework extracted from the data proposed that higher education institutions focused on rule-based more than culture-based and/or market-based controls systems (Berry *et. al.*, 2009, pp.2-20; Lebas and Weigenstein, 1986, pp.259-272). The government used steering media under a model of principal-agent relationship (Broadbent, Dietrich and Laughlin, 1996, pp.259-284) which was the most prominent contingency of the higher education environment in Western Canada.

The findings could be described and explained using a theoretical framework based on the concept of contingencies in the external and internal strategic environment (i.e., governmental rules, organizational culture and competitive markets). The research highlighted a shift from a professional collegiate model of the higher education industry to an administrative top-down model of the higher education industry in Western Canada. The higher education institutions in this research were non-profit with the majority of their funding provided by the government (i.e., non-autonomous and centralised) which presumably explained their tendency to be excessively focused on governmental rules and associated rule-based Management Control Systems.

5.4.2 Proposition 2: Management Control Systems

In line with the preliminary contingency theoretical framework developed from the literature, the contingency theoretical framework extracted from the data proposed that the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance were strategically aligned with a mediating role played by Management Control Systems. Indeed, higher education institutions in Western Canada were using Management Control Systems closely linked to a control process with a measurement stage, a reporting stage and an evaluation stage (Radnor and Barnes, 2007, pp.384-396).

In contrast to the preliminary contingency theoretical framework developed from the literature, however, the contingency theoretical framework extracted from the data proposed that Management Control Systems were aligning higher education institutions to the Roles & Mandates as defined by the government in a one-way process (i.e., no

feedback loops). The government unilaterally decided on the changes in strategic stance (i.e., Roles & Mandates), changes in executive leadership (i.e., changes in Roles & Mandates for an institution led to a new President's search process), and changes in organizational performance indicators (i.e., institutional documents were mostly there for compliance purposes as per Roles & Mandates) with little feedback allowed from the institution to the government. As such, there was a lack of formal and informal feedback loops from the executive leaders to the government (i.e., Presidents had to interact with their Members of the Legislative Assembly just like any other citizen to try to influence their Minister).

In contrast to the preliminary contingency theoretical framework developed from the literature, the contingency theoretical framework extracted from the data proposed that the impact of executive leadership on effectiveness and efficiency measures was only minimal. Roles & Mandates and associated Management Control Systems seemed to be directly responsible for the effectiveness and efficiency measures reported to the government, in the sense that institutions had the obligation by law to comply with governmental demands. This compliance was, however, described and explained as "devious" in the sense that reporting was based on bounded rationality and the selection of self-serving reporting criteria by executive leaders.

This finding could be explained using the notion of potential co-existence of hard and soft Management Control Systems (Berry *et. al.*, 2009, pp.2-20; Berry, Broadbent and Otley, 2005, p.13) in the higher education industry. Hard Management Control Systems promoting clear objectives and decision processes associated to specific measures of performance (e.g., governmental rules) were in use in the higher education industry in Western Canada. The research highlighted that the government used steering media in terms of regulations and provision of funding to achieve specific societal goals with higher education institutions. These steering media implied the use of positional power and/or incentives to initiate actions and activities at a systemic level. However, this top-down principal-agent model was prone to resistance, deviance and opportunistic behaviour, because the agent determined the optimal actions to take given the incentives from the principal to maximise the pay off. The incentive scheme from the principal was

a pre-commitment by the principal, but the agent's actions were not a commitment, since they were just opportunistic (i.e., "devious compliance" without any actual changes to interpretive schemes and actual behaviours). As such, the excessive focus on governmental rules resulted in resistance, deviance and opportunist behaviours within higher education institutions at the level of the soft Management Control Systems.

5.4.3 Proposition 3: Human Resources

In contrast to the preliminary contingency theoretical framework developed from the literature, the contingency theoretical framework extracted from the data proposed that the strategic stance of higher education institutions, executive leadership and organizational performance were not strategically aligned with a mediating role played by Human Resources. The fact that Human Resources were not actively involved in the strategic alignment of the institution was believed to be one of the reason why the strategic alignment of the institution was incomplete (i.e., strategic alignment was not as strong at the faculty and staff level as it was at the executive level). This finding could be explained by the fact that, since the environment of the higher education industry in Western Canada was characterised by behavioural uncertainty, higher education institutions relied more on Management Control Systems than on Strategic Human Capital Systems (Lebas and Weigenstein, 1986, pp.259-272; Spicer and Ballew, 1983, pp.73-96).

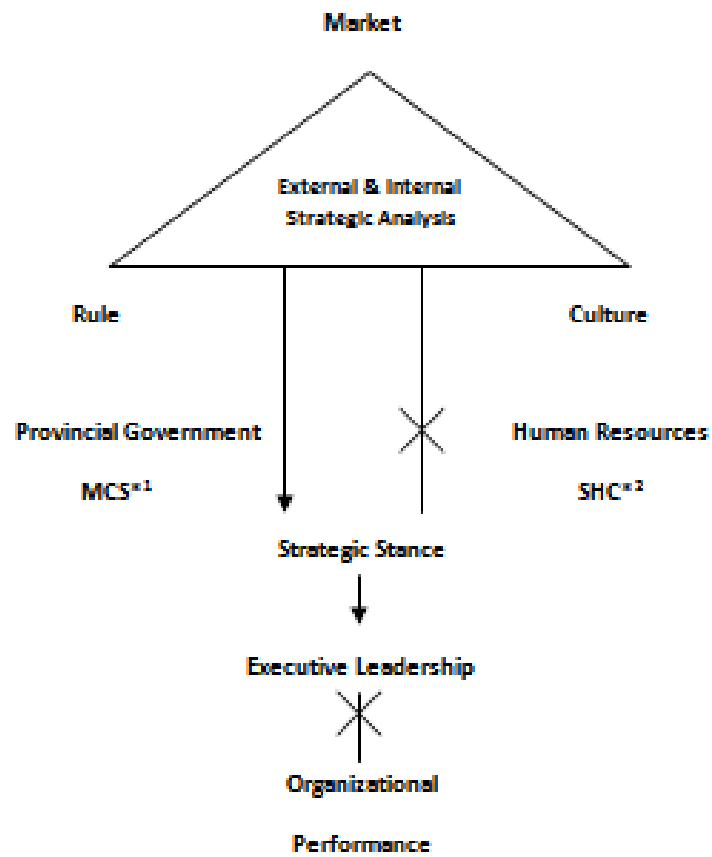
The findings could not be described and explained using a theoretical framework based on the concept of Strategic Human Capital. Higher education institutions were relying more on Management Control Systems than on Strategic Human Capital systems. The Human Resources departments were generally transactional, under-staffed, under-qualified, under-resourced, and not reporting to the President. This observation could potentially explain why work ethics, management style and organizational culture did not seem to be strategically aligned resulting in resistance, deviance and opportunist behaviours at all levels of higher education. Resistance, deviance and opportunist behaviours were presumably exacerbated by the fact that there was no formal attempt by the Human Resources department to strategically align work ethics, management style

and organizational culture. As such, the research highlighted the need for a strategic Human Resources department within higher education institutions.

5.4.4 Summary

The contingency theoretical framework extracted from the data was a contingency theoretical framework that superseded the preliminary contingency theoretical framework developed from the literature, as opposed to an acceptance or rejection of the preliminary contingency theoretical framework (i.e., see Figure 5.1 for details). The contingency theoretical framework contained the following propositions:

- Proposition 1: Changes in the higher education industry can be described and explained in terms of changes in governmental rules, competitive markets and organizational rules.
- Proposition 2: Strategic stance of higher education institutions, executive leadership and organizational performance can be described and explained as strategically aligned with a mediating role played by Management Control Systems. Strategic alignment cannot be described and explained as impacting the strategic stance, executive leadership and organizational performance with multiple feedback loops. Strategic management by executive leaders cannot be described and explained as impacting organizational performance.
- Proposition 3: Strategic stance of higher education institutions, executive leadership and organizational performance cannot be described and explained as strategically aligned with a mediating role played by Human Resources.



*1 Management Control Systems

*2 Strategic Human Capital

Note: The strategic stance is related to the Roles & Mandates of the Higher Education Institution

Figure 5.1 Contingency theoretical framework

5.5 Practical Outcomes

The research focused on the literature overlaps and gaps between the themes of changes in the external and internal strategic environment of the higher education industry in Western Canada (i.e., external and internal strategic analysis), strategy, executive leadership, organizational performance (i.e., strategic alignment), Management Control Systems and Human Resources.

A third gap identified in the literature review was that theory and practice were often regarded as separate and incompatible perspectives. According to Bush (2007, p.392), changes in the higher education industry, strategy, executive leadership, organizational performance, Management Control Systems and Human Resources, were often regarded as related to practical activities and practitioners tended to be dismissive of theories. Yet, policy makers, executive leaders and Human Resources practitioners, often operated on the basis of biased heuristics about whether and how to respond to particular situations or events (Fiol and O'Connor, 2003, pp.54-70; Bogner and Barr, 2000, pp.212-226; Daft, Sormunen and Parks, 1988, pp.123-139). As such, the observed theory-practise divide was not functional, and it was believed that decisions would be better informed if practitioners could understand their background biased heuristics.

5.5.1 Practical Outcome 1: Management Control Systems

Resolving the theory-practise divide with the elaboration of a contingency theoretical framework gave the researcher the opportunity to formulate some speculative recommendations for the relationship between policy makers and executive leaders (i.e., Management Control Systems). These speculative recommendations were based on the whether and how the relationship between the government and executive leaders in the higher education institutions in Western Canada was optimal and whether and how this relationship could be improved.

Firstly, the findings suggested that the government should standardise the metrics used in the industry for most efficiency and effectiveness measures to be identical across higher education institutions. The findings showed that benchmarks already existed for some metrics in terms of efficiency and effectiveness (e.g., FTE students and operating grant

per FTE student) (DaConceicao DaCosta Marques and Mano, 2012, pp.303-315; Meek *et al.* 2010, p.36; Gordon and Fisher, 2008, pp.217-255; Broadbent, 2007, pp.193-198; Carroll, 1999, pp.5-29). However, most metrics were inconsistent from one institution to the other, which made it difficult to fully compare institutions. Higher education institutions in Western Canada mostly reported efficiency and effectiveness indicators that “made them look good” (i.e., “devious compliance”) (Ittner and Larcker, 2003, pp.88-95; Ittner and Larcker, 1997, pp.522-534; Ittner and Larcker, 1995, pp.1-3). Standardisation for efficiency and effectiveness metrics was an important step for the improvement of institutional efficiency and effectiveness in addition to promoting accountability and transparency (Broadbent, 2007, pp.193-198; Broadbent and Laughlin, 2005, pp.75-97). When used by executive leaders, these standardised metrics would help communicate with stakeholders (i.e., Boards of Governors, funding entities, legislators, parents, students, and donors). These standardised metrics would assist executive leaders in identifying institutional shortcomings and improve the efficiency and effectiveness of their strategy (Dion, Robertson and Hughes, 2009, p.40). Executive leaders would then be able to close a credibility gap with stakeholders by providing evidence of efforts taken to address shortcomings. Through annual reporting requirements that would be more reliable in terms of efficiency and effectiveness metrics, the government would be able to better identify institutions that fall above or below the efficiency and effectiveness standards (DaConceicao DaCosta Marques and Mano, 2012, pp.303-315; Broadbent, 2007, pp.193-198).

Secondly, the findings suggested that the government should also redefine the metrics to be used to measure effectiveness and efficiency in the higher education industry of Western Canada (Buytendijk, Wood and Geishecker, 2004, p.3). This redefinition of the metrics is related to the question of the role of higher education within the society and the type of performance indicators and models that are important to consider given the industry’s actual mission. The higher education industry seems to be treated like a commodity with a focus on inputs (i.e., operating grants per FTE student) as opposed to outputs (e.g., “producing” employable citizens) (Bryman, 2007, pp.693-710; Deem and Brehony, 2005, p.217; Amaral, Meek and Larsen, 2003, pp.10-15; Meek, 2003, pp.1-29; Teichler, 2003, pp.171-185; Reed, 2002, pp.23-34; Enders, 2001, pp.1-23; Trowler, 1998, p.12; Clarke and Newman, 1997, p.15). The higher education industry may need to be treated as a social enterprise that contributes to the sustainable development and improvement of the society with a focus on outputs like: (i) educating future highly

qualified graduates to meet the needs of all sectors of the human activity (i.e., not only the business activity); (ii) advancing, creating, and disseminating “common good” knowledge through research and teaching; (iii) providing opportunities for higher learning throughout life; and (iv) protecting and enhancing civil society by training people in the values which form the basis for democratic citizenship (Boyatzis, Smith and Blaize, 2006, pp.8-24; Bekhradnia, 2005, p.3). While strategic management in higher education may strengthen the higher education level of accountability (Broadbent, 2007, pp.193-198), strategic management may not be effective and efficient for social enterprises like higher education institutions in Western Canada (Boyatzis, Smith and Blaize, 2006, pp.8-24). Because of its social mandate, the higher education industry may not need to be efficient and effective today, as it may be an investment for the future instead (Meek *et. al.*, 2010, p.10). Also, caution may have to be exercised before placing the quality, integrity, accessibility and equity of higher education institutions into the hands of a business environment focused on profit instead of on the benefit of the community (Meek *et. al.*, 2010, p.10). Linked to this were questions about the position of the government in preserving and protecting the non-profit model of higher education or opening it up fully to the forces of the market (e.g., for-profit model).

Thirdly, the findings suggested that the process of standardising and redefining the metrics for higher education should involve a process of public consultation as the government ultimately was accountable to the tax payers, the same way higher education institutions were accountable to the government. The process of standardising and redefining the metrics should also focus on the introduction of feedback loops from the institutions to the government for “candid” communication from executive leaders to the government to be possible. Executive leaders were key stakeholders that needed to be included in the process of standardising and redefining performance indicators as the higher education industry is a complex industry to assess. The one way top-down process in place seemed to only result in “devious compliance” as there was a gap between what was reported by executive leaders through institutional documents (i.e., intended strategy or strategic stance) as a way to demonstrate compliance and the reality of the higher education institutions reported by executive leaders through semi-structured interviews (i.e., enacted strategy or strategic actions) (Ittner and Larcker, 2003, pp.88-95; Ittner and Larcker, 1997, pp.522-534; Ittner and Larcker, 1995, pp.1-3). The fact that executive leaders were required to “informally lobby” with their MLAs (i.e., Member of Legislative

Assembly or elected members of the Assembly of Alberta or British Columbia) as a way to interact with the government, like any other citizen, was not considered effective. Executive leaders of higher education institutions represented multi-million dollars institutions and direct communication with their Minister and/or Deputy Minister (i.e., senior civil servant in the government) was considered to be critical for higher education institutions to be indeed accountable as opposed to deviously compliant. Executive leaders of higher education institutions in Western Canada needed frequent direct communication with their Minister and/or their Deputy Minister to successfully implement strategy. Reversely, Ministers and/or Deputy Ministers needed frequent direct communication with executive leaders of higher education institutions to understand how to measure performance in the industry.

Fourthly, the findings suggested that executive leaders of higher education institutions in Western Canada needed to be included in the strategic planning, strategy implementation and strategy evaluation process that would be imposed to their institution via the Roles & Mandates. If Presidents were to be CEOs, more control over their institutions like any CEO in any corporate environment, was advisable. When using tight Management Control Systems in terms of strategic planning, strategy implementation and strategic evaluation, the government needed to understand the value of executive leaders' involvement (Montgomery, 2008, pp.78-92). In higher education institutions in Western Canada, strategic planning was the task of external experts from the government. Once the strategy was identified and the Roles & Mandates were provided to higher education institutions, the task of the external experts from the government was finished (Alberta Advanced Education, 2007, p.1). Then, executive leaders within the institutions had to implement the strategy in line with the Roles & Mandates (Alberta Advanced Education, 2007, p.1). However, strategic management needs to be a continuous, intermittent and flexible process (Montgomery, 2008, pp.78-92). Because of countless contingencies, executive leaders in the higher education industry in Western Canada needed to be allowed to participate in the elaboration of the Roles & Mandates in order to have more flexibility in terms of strategic planning, strategy implementation and strategic evaluation for their institution.

As a summary, there was a need for a balance between a tightened Management Control Systems set up by the government and the involvement of executive leaders in the Management Control Systems process. This implied a constant communication process between the government and executive leaders in higher education institutions for the benefit of both parties, and ultimately for the benefit of the tax payers.

5.5.2 Practical Outcome 2: Human Resources

Resolving the theory-practise divide with the elaboration of a contingency theoretical framework gave the researcher the opportunity to formulate some speculative recommendations for the relationship between executive leaders and Human Resources practitioners. These speculative recommendations were based on the whether and how the relationship between executive leaders and the Human Resources department was optimal and whether and how this relation could be improved using the principles of Strategic Human Capital.

Firstly, the findings suggested that Human Resources departments were often not regarded by executive leaders as strategic partners within the higher education industry in Western Canada. On the contrary, Human Resources were often regarded as “paper-pushers” limited to payroll, benefits, policies and transactional procedures (Becton and Schraeder, 2009, pp.11-18). It was believed that this absence of strategic relationship between executive leaders and their Human Resources departments impeded the kind of engagement that was essential to guide higher education institutions internal response to their challenging environment (Chasserio and Legault, 2009, pp.1113-1131; Conger and Fishel, 2007, pp.442-454; Ericksen and Dyer, 2005).

Secondly, the findings suggested that there was a need to recognize the importance of Human Resources as an agent of continual transformation in higher education institutions (Chasserio and Legault, 2009, pp.1113-1131; Conger and Fishel, 2007, pp.442-454; Ericksen and Dyer, 2005). Higher education institutions in Western Canada could not follow through on changing academic & administrative systems at the faculty and staff level without a concerted strategic effort from Human Resources (Enns and McFalin, 2005, pp.257-278). For example, if a Top Management Team believed that a “students centred approach” was the key competitive advantage for their institution to increase

enrolments and retention, but faculty and staff did not apply this principle in their everyday approach to teaching and students' services, students would not see the transformation that was supposed to take place in the institution, and enrolments and retention indicators would not improve. A skilful Human Resources department was a key partner to implement strategic alignment within the ranks of faculty and staff, with the alignment of recruitment and development practises (Lamoureux, 2010, pp.38-39; Albers-Mohrman and Worley, 2009, pp.431-443; Gupta and Wasylyshyr, 2009, pp.37-41; Conger and Fishel, 2007, pp.442-454; Lawler and Worley, 2006, pp.1-5; Menkes, 2006, pp.51-56; Beer, 2001, pp.233-247), the alignment of performance management systems and the alignment of collective agreements through bargaining (Gratton and Ghoshal, 2003, pp.1-10; Garavan, Morley, Gunnigle and Collins, 2001, pp.46-68; Lepak, and Snell, 1999; Delery and Doty, 1996, pp.802-835; Wright and McMahan, 1992, pp.295-320).

Thirdly, the findings suggested that the need for the Human Resources department to be recognised as a strategic partner was particularly crucial in the higher education industry. Indeed, Human Resources practitioners were believed to be pivotal in this industry, since support to change initiatives was more difficult to obtain because shared/distributed leadership was common in the industry (Bolden, Petrov and Goslin, 2008, pp.257-277; Knight and Trowler, 2001, pp.20-56). Human Resources practitioners were knowledgeable in functional areas such as managing people, establishing credibility and facilitating effective working relationships through change implementation plans (Becton and Schraeder, 2009, pp.11-18). These skills were paramount in an industry where multiple stakeholders had to agree for changes to be indeed implemented at the front line level (i.e., not only at the executive level). This strategic alignment at all levels of the institution was important for the link between executive leadership and organizational performance to be strong, as any gap in strategy implementation at the front-line level of faculty and staff had negative consequences in terms of organizational performance (Crossland and Hambrick, 2007, pp.767-789; Podolny, Khurana and Hill-Popper, 2005, pp.1-36; Finkelstein and Hambrick, 1996, p.23).

Fourthly, the findings suggested that there was a call for Human Resources practitioners to change their longstanding practices, so that they were more fully integrated with the challenges facing their institution (Becton and Schraeder, 2009, pp.11-18; Conger and Fishel, 2007, pp.442-454). This meant that Human Resources practitioners were more required to perform the roles of strategic business partners, change agents and executive

leaders themselves (i.e., and have their own strategic plan). This finding was related to the issue of the calibre of Human Resources practitioners (Becton and Schraeder, 2009, pp.11-18; Conger and Fishel, 2007, pp.442-454). Competency based systems were to be adopted to help reform and rebuild the Human Resource function within the higher education industry in Western Canada. In this new results-oriented higher education industry, Human Resources needed skills related to: (i) change management facilitation; (ii) staffing of people aligned to the strategy; (iii) termination of misaligned people; (iv) negotiation of collective agreement in a way that was aligned to the strategy; (v) performance management systems in relation to SMART goals aligned to the strategy; (vi) flexible menus of developmental opportunities tailored to the specific skills that were problematic for executive leaders given the strategy of the organization (e.g., accounting skills); (vii) succession management plans to grow replacement leaders from within the ranks; and (viii) climate surveys for bottom-up communication processes to be in place within the institution (Becton and Schraeder, 2009, pp.11-18; Conger and Fishel, 2007, pp.442-454). Unfortunately, the findings showed a gap between the competencies that Human Resources practitioners were currently using on the job and those that were seen as important to their strategic function. The Human Resources department was often described as under-resourced, under-staffed and under-talented. Most higher education institutions did not have any formal plan in place to close the competency gap that was identified, because rebuilding Human Resources would take commitment, planning, financial investment and collaboration with faculty and staff (Becton and Schraeder, 2009, pp.11-18; Conger and Fishel, 2007, pp.442-454).

Fifthly, the findings suggested that new business architectures were required in order to leverage Human Resources to their full potential in the higher education industry in Western Canada (Ulrich, Brockbank and Johnson, 2009, pp.24-31; Lepak and Snell, 2002, pp.517-543). In terms of commitment from executive leaders, the Director of Human Resources needed to report directly to the President and the Board of Governors (McCann, 2006, pp.4-5) and to be part of the Top Management Team (Simsek, 2007, pp.653-662). As such, the Director of Human Resources needed to become a Vice-President of Human Resources or equivalent. Indeed, the Human Resources department was shown to be a strategic partner only in institutions where executive leaders clearly understood the imperative for direct communication between them and the Human Resources department (Simsek, 2007, pp.653-662). Sometimes this meant that Human Resources practitioners needed to advocate for their involvement at a strategic level if

their potential was not clearly understood by executive leaders. In terms of planning and financial investment, the Human Resources department needed to use reports displaying the cost of low productivity, the cost of high turn-over, the cost of recruitment and development, the cost of replacement faculty and staff, the cost of misaligned faculty and staff (e.g., no increase in enrolments and retention when faculty and staff do not apply a students centred approach to their teaching and students' services practises) and the way changes in Human Resources policies in relation to the bottom-line did increase effectiveness and efficiency in the institution (Cascio and Boudreau, 2011, pp.1-18; Simsek, 2007, pp.653-662; Guthrie, 2001, pp.180-190). The Human Resources department needed greater financial resources to create roles with a transactional focus that would free-up time for roles with a strategic focus. For this financial investment to be justified, the demonstration of the potential "return on investment" had to be made. In terms of collaboration with faculty and staff, more opportunities for faculty and staff to consider support roles in the Human Resources department could be offered, as this would improve Human Resources understanding of the specificity of the business (e.g., academia and students' support). Human Resources could not align faculty and staff in a way that added value to their professional practises without a collaboration with faculty and staff (Becton and Schraeder, 2009, pp.11-18; Conger and Fishel, 2007, pp.442-454). This collaboration with faculty and staff was also an efficient way to promote organizational learning (Evans, 2010, pp.19-20).

As a summary, there was a need for the recognition of the role that Human Resources could play in the strategic alignment of the institution, most of all in the higher education industry where all stakeholders were expected to be involved in the decisions and implementation of the strategy. Changes in business structure and in the allocation of resources were advised to close the gap between the role played by the Human Resources department today and the role a strategic department could play, for the benefit of executive leaders, and ultimately for the benefit of the institution.

5.6 Empirical Limitations

In general, the research successfully explored the research questions. However, some empirical limitations could be considered.

5.6.1 *Convenience Sampling*

The findings of this research had some empirical limitations resulting from the use of convenience (i.e., non-probability) sampling techniques at different levels. Indeed, samples were chosen as a result of the personal networks of the researcher or as a consequence of accessibility. While efforts were made to ensure appropriate selection of informants, institutional documents and variables, samples tended to be mono-cultural (i.e., informants from higher education institutions in Western Canada, institutional documents from higher education institutions in Western Canada and variables as per information available online). As such, the researcher did not consider samples that were representative of the entire population of executive leaders in higher education institutions, all possible institutional documents or all possible variables.

Firstly, the sample of informants utilised in the semi-structured interviews study had methodological weaknesses that imposed limitations, since it did focus on a small set of executive leaders from higher education institutions in Western Canada and informants were from the researcher's network. One potential weakness was that this convenience sampling strategy could imply a systematic bias. This systematic bias referred to a constant difference between the findings from the sample compared to the entire population resulting in skewed findings. A possible weakness of this lack of randomization could be that alignment and compliance to the government (i.e., Management Control Systems) were over-represented because of the nature of the selected sample of informants. Another potential weakness was that there was little possibility for generalisation and inference to the entire population of executive leaders in higher education institutions, since the sample was not representative of the entire population of executive leaders in higher education institutions.

Secondly, most of the findings for the institutional documents study were limited to institutional documents available online. These institutional documents were used

because they were omnipresent in the higher education industry, since accreditation agencies and governments demanded them. One potential weakness was that these institutional documents may only be rhetorical with little strategic consequences (Morphew and Hartley, 2006, pp.456-471). A majority of those who had conducted empirical analysis on universities and colleges mission statements and higher education institutional documents saw these documents as a collection of stock phrases that were excessively vague and/or unrealistically aspirational (Morphew and Hartley, 2006, pp.456-471). From this perspective, these documents ultimately failed to convey any noteworthy sense on the higher education institution's enacted strategy apart from a strong desire to display compliance to the government in terms of their stated strategy. These institutional documents may have been normative at best, in that they existed only because they were expected to exist (i.e., "devious compliance").

Thirdly, the quantitative analysis of institutional documents focused on a limited amount of variables in the triangulation study (DaConceicao DaCosta Marques and Mano, 2012, pp.303-315; Glass *et. al.*, 2009, pp.249-267; Broadbent, 2007, pp.193-198; Otley, 1999, pp.363-382). For example, performance outcomes could have included many efficiency and effectiveness measures like excess/deficiency of revenues over expenses, graduation rates, job placement rates, graduate school entrance exam scores, and students' satisfaction scores, etc. (Burke, Cho and Wright, 2008, pp.529-536; McPherson and Shulenburg, 2006, p.23). One potential weakness was that although other variables could have been used, only a few variables were selected because they were available online contrary to the others.

5.6.2 Time Span

The findings of this research had some empirical limitations resulting from the use of a time span that may have been too short to let the researcher observe any impact of strategic management by executive leaders on organizational performance. While efforts were made to ensure that the window of data collection was long enough (i.e., over 1 year), the lack of influence of strategic management by executive leaders on organizational performance may have been related: (i) to the constant and uncontrollable pressures for changes in the strategy beyond executive leaders control (e.g., change in

Roles & Mandates); and (ii) to the fact that in the higher education industry changes in organizational performance were slower to observe than in any other industry because it was a low-velocity industry (Baum and Wally, 2003, pp.1107-1129; Garg, Walters and Priem, 2003, pp.725-744).

Firstly, executive leaders' influence on organizational performance has been shown to be limited by environmental, organizational and legitimacy constraints (Hannan and Freeman, 1984, pp.149-164; DiMaggio and Powell, 1983, pp.147-160; Pfeffer and Salancik, 1978, p.48). It was suggested that the impact of executive leaders on performance was modest at best (Finkelstein and Hambrick, 1996, p.23) and related to factors outside the control of a single individual (Podolny, Khurana and Hill-Popper, 2005, pp.1-36) because of the constant pressure from stakeholders and shareholders for greater profitability and pressure to change strategy in a way that was too rapid to observe any impact of executive leadership on organizational performance (Habib and Jungthirapanich, 2009, pp.25-38; Garg, Walters and Priem, 2003, pp.725-744; Hrebiniak and Joyce, 1984, p.65). As a result of such relentless pressure from stakeholders, strategies were executed within shortened periods of time and executive leaders could not dedicate enough time to increase organizational performance, hence the absence of executive leaders' impact on organizational performance.

Secondly, the concept of industry velocity has been shown to be related to the speed of changes in the industry (Baum and Wally, 2003, pp.1107-1129; Jurkovich, 1974, pp.380-394; Duncan, 1972, pp.313-328) and the unpredictability of these changes in the industry (Baum and Wally, 2003, pp.1107-1129; Eisenhardt and Martin, 2000, pp.1105-1121; Brown and Eisenhardt, 1998, p.21; Eisenhardt, 1993, pp.117-136). Low-velocity industries (e.g., like the higher education industry) were slower and more predictable with clearer market boundaries, more obvious business models, and more stable market players than other industries. Even in today's context of changes, the higher education industry may have been slow as compared to publicly run corporate organizations. Executive leaders in low-velocity environments addressed factors with a high level of predictability and stability as compared to other types of industry. As a consequence, executive leaders directed their attention to slow changes in the industry because they

considered fast factors to be less predictable and less linear (Baum and Wally, 2003, pp.1107-1129; Brown and Eisenhardt, 1998, p.21; Eisenhardt, 1993, pp.117-136). This meant that the higher education industry was a low-velocity industry that required a longer window of time for any changes in performance outcomes in relation to strategic management by executive leaders to even be possible to observe.

5.6.3 Non-Parametric Statistics

The findings of this research also had some empirical limitations resulting from the use of non-parametric statistics in the triangulation study. Indeed, non-parametric statistics are used when the researcher is reluctant to assume normality of the data, since these non-parametric statistics are intended to be appropriate no matter what the distribution of the data (Smith, 1988, pp.653-684). These non-parametric statistics work for both normal and non-normal distributions. Hence, they are also called distribution free tests (Smith, 1988, pp.653-684).

Non-parametric statistics are not as powerful as their parametric counterparts. Indeed, for any probability of type I error (i.e., error that occurs when one rejects a null hypothesis that is actually true), the non-parametric statistics have higher probability of type II error (i.e., error that occurs when one does not reject a null hypothesis that is actually false) (Smith, 1988, pp.653-684). However, if the data do not come from a normal distribution, then non-parametric statistics are more appropriate as they are not based on an erroneous assumption of normality. As such non-parametric statistics are said to be robust despite their limitations with normal distribution data (Smith, 1988, pp.653-684).

5.7 Theoretical Limitations

In general, the theoretical framework successfully answered the research questions. However, a theoretical critique could be considered.

5.7.1 *Research Ontology and Epistemology*

The critique of a theoretical framework is associated to the relative strengths and weaknesses of the theoretical framework in terms of pure research and applied research outcomes.

When setting out a research project, a researcher holds a series of beliefs in regards to the nature of reality and a perspective on how the research should investigate the world to answer the research questions. Easterby-Smith, Thorpe and Lowe (2008, p.33) state that these beliefs can be distinguished on three dimensions: (i) ontology (i.e., philosophical assumptions about the nature of reality); (ii) epistemology (i.e., general set of assumptions about the best ways of inquiring into the nature of reality); and (iii) methodology (i.e., combination of techniques used to enquire into a specific situation with different individual techniques for data collection and analysis).

The ontology and epistemology of this research were relativist with some implications in terms of the methodology used (Easterby-Smith, Thorpe and Lowe, 2008, p.33). Relativism is based on the philosophical and general set of assumptions that the truth has multiple facets and that facts depend on the viewpoint of the researcher in interaction with multiple accounts of reality (Easterby-Smith, Thorpe and Lowe, 2008, p.33). According to Easterby-Smith, Thorpe and Lowe (2008, p.34), in a relativist context, the difficulty to access reality can be alleviated by the use of a methodology that focuses on multiple perspectives (e.g., triangulation of methodology) to hopefully converge towards the same guiding propositions in terms of the description and explanation of a phenomenon. In line with this relativist ontology and epistemology, a combined methodology design with triangulation was adopted in this research (Easterby-Smith, Thorpe and Lowe, 2008,

p.146): (i) a qualitative Grounded Theory analysis of semi-structured interviews and institutional documents; and (ii) a quantitative analysis of institutional documents.

One potential strength of the relativist tradition is that it accepts the value of multiple viewpoints which enables for generalisation beyond the boundaries of the viewpoints themselves (Easterby-Smith, Thorpe and Lowe, 2008, p.42). One potential weakness of the relativist tradition is that even with the use of triangulation, the description and explanation of a phenomenon is only a matter of probability and suppositions as the description and explanation of a phenomenon is dependent on contingencies as opposed to Universalist (Easterby-Smith, Thorpe and Lowe, 2008, p.42). Indeed, contingency is the status of guiding propositions that are neither true nor false under every possible circumstance despite potential for generalisation beyond the boundaries of the viewpoints themselves (Easterby-Smith, Thorpe and Lowe, 2008, p.34).

5.7.2 Critical Evaluation of the Contingency Theoretical Framework

When conducting pure research, outcomes can be evaluated at three different levels (Easterby-Smith, Thorpe and Lowe, 2008, p.9): (i) discovery (i.e., with new explanations emerging from empirical data); (ii) invention (i.e., with new methods to deal with a problem); and (iii) reflection (i.e., with existing theoretical frameworks being re-examined in different contexts). When conducting applied research, outcomes can be evaluated in terms of their potential usefulness for practitioners (Easterby-Smith, Thorpe and Lowe, 2008, p.10).

Critically evaluating the contingency theoretical framework required three assessment steps related to the way the contingency theoretical framework: (i) investigated (i.e., empirical outcomes); (ii) interpreted (i.e., theoretical outcomes); and (iii) resolved (i.e., practical outcomes) the research problems.

5.7.2.1 Investigation

The researcher needed to evaluate the investigative nature of the contingency theoretical framework resulting from the research. At this level, Wacker (1998, pp.361-385) believed that any critique of a theoretical framework should refer to the role of the literature review in the theory building process.

In this research, the investigative process resulting in the contingency theoretical framework was in contrast to the “tabula rasa” approach of a classic Grounded Theory (Easterby-Smith, Thorpe and Lowe, 2008, p.126; Schreiber and Stern, 2001, pp.78-87; Charmaz, 2000, pp.509-535; Strauss and Corbin, 1998, p.47; Glaser and Strauss, 1967, p.37). Indeed, the assumption was that approaching research without a focus on the relevant literature was unwise and unrealistic (Schreiber and Stern, 2001, pp.78-87; Charmaz, 2000, pp.509-535; Strauss and Corbin, 1998, p.47). Theoretical sensitivity was apparent in the way the preliminary contingency theoretical framework was developed from the literature review and contained guiding propositions for the empirical stage. One potential weakness of the contingency theoretical framework resulting from this investigative process was that an over-familiarity with the literature may have been a threat to the researcher’s theoretical objectivity when collecting and analysing the data with a tendency to confirm what was actually already known in the literature review (Easterby-Smith, Thorpe and Lowe, 2008, p.46; Backman and Kyngas, 1999, pp.147-153, Skodol-Wilson and Ambler-Hutchinson, 1996, pp.122-134; Glaser, 1978, p.34). This weakness may have had a negative impact on the range of description of the contingency theoretical framework, since this weakness implied a theoretical bias in the investigation of the phenomenon.

5.7.2.2 Interpretation

The researcher needed to evaluate the interpretative nature of the contingency theoretical framework resulting from the research. At this level, Wacker (1998, pp.361-385) believed that any critique of a theoretical framework should refer to the limitations of the

theoretical framework in terms of: (i) the generalisability of the theoretical framework; and (ii) the type of theory building relationship involved in the theoretical framework.

Firstly, the contingency theoretical framework depicted core themes and interrelationships that were extracted from different data and analysis processes and as such with a potential for generalisation (Easterby-Smith, Thorpe and Lowe, 2008, p.p.53). Indeed, Charmaz (2003, p.250) proposes a version of the Grounded Theory that “assumes the relativism of multiple social realities, recognises the mutual influence of knowledge by the viewer and viewed, and aims toward an interpretative understanding of subjects meaning”. One potential strength of the contingency theoretical framework was that this interpretative approach accepted the truth as dependent on the viewpoint of the researcher and multiple sources (Suddaby, 2006, pp.633-642; Easterby-Smith, Thorpe and Lowe, 2008, p.42). The research transcended the typical research boundaries of one unit of analysis by examining several units of analysis (i.e., informants’ and institutional documents’ understanding of the institution) with a combined methodology design (i.e., qualitative and quantitative). Another potential strength of the contingency theoretical framework resulting from this interpretative approach was that the contingency theoretical framework was using a comparative approach (i.e., iterative process) to search for a consensus resulting in the revised contingency theoretical framework (Easterby-Smith, Thorpe and Lowe, 2008, p.42). This process of comparison between multiple realities, including the literature review, was important in a relativist context (Schreiber and Stern, 2001, pp.78-87; Charmaz, 2000, pp.509-535; Strauss and Corbin, 1998, p.34). These strengths may have had a positive impact on the range of explanation of the contingency theoretical framework as the theoretical framework may have gained the possibility to be generalised across viewpoints without being Universalist (Easterby-Smith, Thorpe and Lowe, 2008, p.34).

Secondly, the contingency theoretical framework resulted from a theory building relationship including the application of the preliminary contingency theoretical framework with data collected in a rigorous way (Wacker, 1998, pp.361-385). In line with Guba and Lincoln (1998, pp.67-79), the rigour of the Grounded Theory analysis process was assessed in terms of trustworthiness and authenticity. Trustworthiness and

authenticity were achieved since the research gained access to the representations of the informants and institutional documents, with transparency on how sense was extracted from raw data, and how concepts were derived from the research with relevance in multiple settings of triangulation (Easterby-Smith, Thorpe and Lowe, 2008, p.52; Guba and Lincoln, 1998, pp.67-79). One potential strength of the contingency theoretical framework was that the interpretative approach of the theory building relationship could be qualified as rigorous at the empirical level. This strength may have had a positive impact on the range of explanation of the contingency theoretical framework, as the theoretical framework was the result of a rigorous interpretative empirical process, where the researcher could consider that a number of perspectives had been included, with convergent observations, and a reasonable probability for the patterns observed to be repeated in other populations without making a Universalist knowledge claim (Easterby-Smith, Thorpe and Lowe, 2008, p.53). However, caution needed to be exercised as empirical rigour did not necessarily mean theoretical rigour.

5.7.2.3 *Relevancy*

The researcher needed to evaluate the relevancy of the contingency theoretical framework to academic debates and practitioners. At this level, Wacker (1998, pp.361-385) believed that any critique of a theoretical framework should refer to the academic and practical applications of the theoretical framework.

Firstly, the academic relevancy of the theoretical framework was related to a contingency theoretical framework. Contingency is the status of guiding propositions that are neither true nor false under every possible circumstance. Indeed, the range of description and the range of explanation of the contingency theoretical framework were related to the multiple contexts the contingency theoretical framework was extracted from (Easterby-Smith, Thorpe and Lowe, 2008, p.42). The truth value of the guiding propositions and associated knowledge claim of the theoretical framework was contingent (i.e., relative) upon the multiple views of the truth in the research (Easterby-Smith, Thorpe and Lowe, 2008, p.33). One potential weakness of the contingency theoretical framework was that its practical relevancy in terms of knowledge claim was based on a probability, as it was contingent (i.e., relative) to the context under investigation (Easterby-Smith, Thorpe and

Lowe, 2008, p.34). As such, the contingency theoretical framework was formulated in a way that made it easy to refute, irrespective of the number of replications collected in the empirical stage of this research via triangulation (Easterby-Smith, Thorpe and Lowe, 2008, p.51). This weakness may have had a negative impact on the range of application of the contingency theoretical framework, since this weakness implied a limitation in terms of its knowledge claim to universal contexts (Easterby-Smith, Thorpe and Lowe, 2008, p.51).

Secondly, the practical relevancy of the contingency theoretical framework was related to its usefulness for practitioners as demonstrated in the informal interviews. Indeed, the reflective nature of the exercise of commenting the preliminary findings of the semi-structured interviews study led to practitioners thinking of practical implications in their own work environment. According to Bush (2007, pp.391-406), strategic management is often regarded as related to practical activities and practitioners are often dismissive of theories. As a consequence, research in this field was overly descriptive and tended to inhibit the development of a theoretical framework. As such, there was a theory–practice divide. One potential strength of the contingency theoretical framework was that its practical relevancy logically followed from the contingency theoretical framework (Klein, Dansereau and Hall, 1994, pp.105-229). As such, the contingency theoretical framework was useful, because it was possible to offer multiple speculative recommendations to policy makers, executive leaders and Human Resources practitioners and because decisions from practitioners could be better informed now that the understanding of their own background theories was more coherent hence reducing the gap between theory and practice. This strength may have had a positive impact on the range of application of the contingency theoretical framework, since this strength implied the usefulness of the theoretical framework to practitioners. Indeed, the contingency theoretical framework helped close the theory-practise divide by leading to recommendations to improve the practise in the field.

5.7.3 *Summary*

In a relativist context, the assumption was that approaching research without a focus on the relevant literature was unwise and unrealistic and that the literature review should be used at all stages to maintain an appropriate level of theoretical sensitivity (Suddaby,

2006, pp.633-642; Schreiber and Stern, 2001, pp.78-87; Charmaz, 2000, pp.509-535; Strauss and Corbin, 1998, p.18). Consequently, the researcher began with the literature review to extract a preliminary contingency theoretical framework. Then, the researcher applied the preliminary contingency theoretical framework through the empirical stage with a combined methodology design of: (i) qualitative Grounded Theory analysis of semi-structured interviews and institutional documents; and (ii) quantitative analysis of institutional documents. Comparing the literature review to the findings in the empirical stage, the preliminary contingency theoretical framework was modified to generate an enhanced contingent theoretical framework. As such, an iterative research process was used to extract an enhanced contingency theoretical framework as a basis for further research.

5.8 Recommendations for Further Research

The previously described empirical and theoretical limitations resulted in the fact that any attempt to extend the findings to a broader context than the higher education industry in Western Canada may be considered problematic.

In order to overcome the empirical limitations, further research with a larger or more representative sample and other types of populations would be required to cater for smaller minority groupings. Also, further research with a larger time span would be valuable to make sure that the lack of impact of strategic management by executive leaders on performance outcomes was not simply related to a methodological bias (i.e., the time span selected was too short to observe any impact on organizational performance) but to an actual lack of effectiveness and efficiency of strategic management by executive leadership. Finally, more research aiming at clarifying the methodological practise of the Grounded Theory would be helpful. Guidelines founded on a solid methodological basis would help researchers who are entering this field of inquiry for the first time. Further research and discussion in this area would be useful, not only for the Grounded Theory method, but for any other forms of qualitative inquiry (Mills, Bonner and Francis, 2006, pp.45-78; Charmaz, 2003, pp.249-291).

In order to overcome the theoretical limitations, further research would be required before the transferability of the findings to other settings could be demonstrated and before the

descriptive and explanatory range capability of the contingency theoretical framework could be established. More specifically, there were three areas of research that would support the elevation of the contingency theoretical framework to a formal theoretical framework:

- Research on the interrelationships between the strategic stance of higher education institutions, executive leadership, organizational performance, Management Control Systems and Human Resources within a wider range of ontology, epistemology and methodology. For example, research using confirmatory Structural Equation Modeling as a way to test latent core variables and their interrelationships within a positivist and hypothetico-deductive paradigm (i.e., as opposed to a relativist exploratory paradigm).
- Research on the interrelationships between the strategic stance of higher education institutions, executive leadership, organizational performance, Management Control Systems and Human Resources within different business environments. For example, research using a quasi-experimental design to compare non-profit to for-profit higher education and their respective focus on governmental rules as opposed to competitive markets (e.g., non-profit may focus primarily on governmental rules and for-profit may focus primarily on competitive markets). Another example would be research using a quasi-experimental design to compare types of institutions and their respective focus on governmental rules and organizational culture (e.g., “Baccalaureate and Applied Studies Institutions and Comprehensive Academic and Research Institutions” may be more prone to focus on rule-based and culture-based Management Control Systems than “Comprehensive Community Institutions” and “Specialized Art and Culture Institutions and Polytechnical Institutions”).
- Research on the interrelationships between the strategic stance of higher education institutions, executive leadership, organizational performance, Management Control Systems and Human Resources within international contexts. For example, research comparing the higher education industry in more individualistic versus more collectivistic cultures and the potential impact in terms of deviance versus respect of the governmental rules at both the enacted and stated strategy level (e.g., less deviance in collectivist cultures than in individualistic cultures because of an intrinsic motivation to respect the rules).

CHAPTER 6 – CONCLUSIONS

This chapter concludes the thesis by presenting an overview, the empirical, theoretical and practical debates in the literature, the main findings, as well as the knowledge claims of the research.

6.1 Overview

Strategy, executive leadership and organizational performance have been documented over decades of research. Despite the significant body of descriptive data in the field, there was a paucity of research in terms of the empirical, theoretical and practical interrelationships between changes in the higher education industry, strategy, executive leadership, organizational performance, Management Control Systems and Human Resources.

This research was related to the resolution of empirical debates in the context of the higher education industry in Western Canada, and to the elaboration of a theoretical framework that would increase the range of description and explanation of the interrelationships existing between changes in the higher education industry, strategy, executive leadership, organizational performance, Management Control Systems and Human Resources. Such a theoretical framework would also be the basis for speculative recommendations to policy makers, executive leaders and Human Resources practitioners.

6.2 Empirical, Theoretical and Practical Debates in the Literature

This research was related to the themes of changes in the external and internal strategic environment of the higher education industry (i.e., external and internal strategic analysis), strategy, executive leadership, organizational performance (i.e., strategic alignment), Management Control Systems and Human Resources. Three major gaps were extracted from the overlaps in the literature review (i.e., see Section 2.5.1).

Firstly, the literature review showed that three empirical debates were to be resolved in the context of the higher education in Western Canada:

- The first empirical debate was linked to the whether and how the higher education industry had changed on dimensions related to governmental rules, competitive markets and organizational culture in a way that could be described and explained as “collegial managerialism” (i.e., see Section 2.1).
- The second empirical debate was linked to the whether and how there was an interrelationship between strategy, executive leadership and organizational performance (i.e., strategic alignment) in a way that could be described and explained as mediated by Management Control Systems with a focus on strategic management by executive leaders and executive leaders’ success (i.e., see Section 2.2 and Section 2.3).
- The third empirical debate was linked to the whether and how there was an interrelationship between strategy, executive leadership and organizational performance (i.e., strategic alignment) in a way that could be described and explained as mediated by Human Resources with a focus on Strategic Human Capital (i.e., see Section 2.4).

Secondly, scholars mostly focused on descriptive studies answering the questions of the “whom, when and where” of strategy, executive leadership and organizational performance. Addressing the theoretical question of “whether and how” would lead to a more systematic theorised examination of the research area with the development of a contingency theoretical framework.

Thirdly, theory and practice were often regarded as separate and incompatible perspectives. As a consequence, research in this field was overly descriptive and tended to inhibit the development of a theoretical framework. Yet, the gaps between action and reflection in policy makers, executive leaders and Human Resources practitioners had been shown to be related to failures in formal decisional processes and to opportunistic behaviours. Reducing the gap between theory and practise could potentially improve actual accountability and compliance with regulatory requirements by decreasing opportunistic behaviours.

6.3 Main Findings

A preliminary contingency theoretical framework describing and explaining the interrelationships between changes in the higher education industry, strategy, executive leadership, organizational performance, Management Control Systems and Human Resources was developed from the literature to serve as a theoretical stance for the empirical research (i.e., see Section 2.5.3).

The empirical research was undertaken in five phases with a combined methodology approach (i.e., see Section 3.2 and Sections 4.1, 4.2, 4.3). The first phase involved a pilot study (i.e., see Section 3.3). The second phase involved the Grounded Theory analysis of 20 semi-structured interviews of executive leaders from the higher education industry in Western Canada (i.e., primary data) (i.e., see Section 4.1). The third phase involved the Grounded Theory analysis of institutional documents from 46 higher education institutions in Western Canada (i.e., secondary data) (i.e., see Section 4.2). Emergent themes and interrelationships were extracted from the Grounded Theory analysis of the semi-structured interviews and the institutional documents. The fourth phase involved the analysis of 9 informal interviews of executive leaders from the higher education industry in Western Canada (i.e., validation data) (i.e., see Section 4.1). The fifth phase involved a triangulation study using descriptive univariate & bivariate statistics as well as non-parametric statistics to further explore the emergent themes and their interrelationships for 46 higher education institutions in Western Canada (i.e., triangulated data) (i.e., see Section 4.3). The triangulation study within a Grounded Theory context was an additional route into theory generation.

The research findings were compared to the preliminary contingency theoretical framework to result in an enhanced contingency theoretical framework (i.e., see Section 5.4).

6.3.1 Semi-Structured Interviews Study, Institutional Documents Study and Triangulation Study

The semi-structured interviews study provided in-depth information in terms of the external and internal strategic analysis of the higher education industry environment and in terms of the functional interrelationships existing between the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Management Control Systems and no mediating role played by Human Resources. The informal interviews confirmed the credibility as well as the ontological and educative authenticity of the researcher's Grounded Theory analysis for the semi-structured interviews study (i.e., see Section 4.1).

The institutional documents study provided less in-depth information than the semi-structured interviews study (i.e., see Section 4.2). However, the findings from the institutional documents study strengthened the findings from the semi-structured interviews study, as they displayed similar patterns of findings using different types of data (i.e., see Appendix R and Appendix U).

The triangulation study also provided less in-depth information than the semi-structured interviews study and institutional documents study (i.e., see Section 4.3). However, the findings from the triangulation study further strengthened the findings from the semi-structured interviews study and institutional documents study, as they displayed similar patterns using a different type of analysis (i.e., see Appendix U).

6.3.2 Higher Education Industry

- Proposition 1: Changes in the higher education industry can be described and explained in terms of changes in governmental rules, competitive markets and organizational rules.

The semi-structured interviews study showed a functional interrelationship between the strategic stance of higher education institutions in Western Canada and changes in terms

of governmental rules, competitive markets and organizational culture (i.e., external and internal strategic analysis) (i.e., see Section 4.1).

The institutional documents study confirmed a functional interrelationship between the strategic stance of higher education institutions in Western Canada and changes in terms of governmental rules, competitive markets and organizational culture (i.e., external and internal strategic analysis) (i.e., see Section 4.2).

The triangulation study confirmed that even if a managerial approach to higher education was changing executive leaders profile in Western Canada, the process was not fully completed as compared to other countries worldwide (i.e., see Section 4.3).

As a summary, changes in the higher education industry in Western Canada can be described and explained in terms of changes in governmental rules, competitive markets and organizational rules.

6.3.3 Management Control Systems

- Proposition 2: Strategic stance of higher education institutions, executive leadership and organizational performance can be described and explained as strategically aligned with a mediating role played by Management Control Systems. Strategic alignment can be described and explained as impacting the strategic stance, executive leadership and organizational performance with multiple feedback loops. Strategic management by executive leaders can be described and explained as impacting organizational performance.

The semi-structured interviews study showed a functional interrelationship between the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Management Control Systems (i.e., see Section 4.1). Importantly, however, a profile of “devious compliance” was highlighted in the higher education industry with a divergence between what executive leaders reported in institutional documents and what actually happened inside the institution (i.e., enacted strategy as opposed to stated strategy)

possibly as a way to resist a top-down approach to strategic management within the higher education industry in Western Canada.

The institutional documents study confirmed a functional interrelationship between the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Management Control Systems (i.e., see Section 4.2), even if this may have been “devious compliance” as described in the semi-structured interviews study.

The triangulation study confirmed that there was a functional interrelationship between the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance (i.e., strategic alignment) with a mediating role played by Management Control Systems (i.e., see Section 4.3). However, the characteristics of executive leadership in the organization were not related to organizational performance indicators. This was believed to be the consequence of the fact that the Roles & Mandates of the institutions were strongly interrelated with a series of outcomes, but that executive leadership was not necessarily mediating this interrelationship as executive leadership was constrained by a series of external factors (e.g., the Board of Governors with no CEO-duality).

As a summary, the strategic stance of higher education institutions, executive leadership and organizational performance can be described and explained as strategically aligned with a mediating role played by Management Control Systems, as well as with a divergence between the enacted strategy and the stated strategy. Strategic alignment cannot be described and explained as impacting the strategic stance, executive leadership and organizational performance with multiple feedback loops. Strategic management by executive leaders cannot be described and explained as impacting organizational performance.

6.3.4 *Human Resources*

- Proposition 3: Strategic stance of higher education institutions, executive leadership and organizational performance can be described and explained as strategically aligned with a mediating role played Human Resources.

The semi-structured interviews study showed that there was a functional interrelationship between the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance (i.e., strategic alignment) with no mediating role played by Human Resources (i.e., see Section 4.1).

The institutional documents study confirmed that there was no mediating role played by the Human Resources department in the functional interrelationship between the strategic stance of higher education institutions in Western Canada, executive leadership and organizational performance (i.e., strategic alignment) (i.e., see Section 4.2).

The triangulation study confirmed that the majority of Human Resources departments in higher education institutions across Western Canada were transactional as opposed to strategic (i.e., see Section 4.3).

As a summary, the strategic stance of higher education institutions, executive leadership and organizational performance cannot be described and explained as strategically aligned with a mediating role played Human Resources.

6.4 Knowledge Claim and Contributions

The interrelationships between changes in the higher education industry, strategy, executive leadership, organizational performance in terms of Management Control Systems and Human Resources had been under-researched at an empirical, theoretical and practical level.

Core themes and interrelationships were extracted from the Grounded Theory analysis of semi-structured interviews (i.e., see Section 4.1) and institutional documents (i.e., see Section 4.2) and further explored with the triangulation study (i.e., see Section 4.3).

The research and resulting contingency theoretical framework (i.e., see Section 5.4) described and explained core themes and their interrelationships with the following propositions: (i) changes in the external and internal strategic environment of the higher education industry could be described and explained in terms of changes in governmental rules, competitive markets and organizational culture; (ii) the strategic stance of higher

education institutions, executive leadership and organizational performance could be described and explained as strategically aligned with a mediating role played by Management Control Systems; and (iii) the strategic stance of higher education institutions, executive leadership and organizational performance could not be described and explained as strategically aligned with a mediating role played by Human Resources.

It was believed that the research and resulting contingency theoretical framework (i.e., see Figure 5.1) superseded the preliminary contingency theoretical framework developed from the literature (i.e., see Figure 2.1).

The descriptions and explanations within a broad theoretical framework were significant as they led to three types of contributions in terms of knowledge claim: (i) empirical contributions (i.e., see Section 5.2); (ii) theoretical contributions (i.e., see Section 5.3 and Section 5.4); and (iii) practical contributions (i.e., see Section 5.5).

6.4.1 Empirical Contributions

The first contribution was related to the way the research and resulting contingency theoretical framework resolved empirical debates in the context of the higher education industry in Western Canada (i.e., see Section 5.2).

6.4.1.1 Higher Education Industry

The findings contributed to the empirical debate on changes in the higher education industry by showing that a “collegial managerialism” model could be successful in describing and explaining the higher education industry in Western Canada, with the habit of having academics elevated to leadership positions combined with administrative and managerial practices.

6.4.1.2 Management Control Systems

The findings contributed to the empirical debate on strategic management by executive leaders by showing that strategic management by executive leaders was not necessarily improving effectiveness and efficiency in the higher education industry in Western

Canada, with executive leaders of institutions “deviously” complying with the demands of the government, executive leaders having a limited impact on organizational performance, and faculty and staff resisting strategic alignment by executive leaders.

6.4.1.3 *Human Resources*

The findings contributed to the empirical debate on strategic Human Resources by showing that Human Resources needed to go through an in-depth transformation before they could be considered strategic in the higher education industry in Western Canada, with the majority of institutions having only a transactional Human Resources department.

6.4.2 *Theoretical Contributions*

The second contribution was related to the way the research and resulting contingency theoretical framework reduced the gap in terms of the “whether and how” of changes in the external and internal strategic environment of the higher education industry, strategy, executive leadership and organizational performance with a mediating role played by Management Control Systems and Human Resources (i.e., see Section 5.3 and Section 5.4).

6.4.2.1 *Higher Education Industry*

The findings could be described and explained using a theoretical framework based on the concept of contingencies in the external and internal strategic environment (i.e., governmental rules, organizational culture and competitive markets). The research highlighted a shift from a professional collegiate model of the higher education industry to an administrative top-down model of the higher education industry in Western Canada. This shift towards the “end of a professional collegiate model in higher education” was a relatively new phenomenon in Western Canada. The higher education institutions in this research were non-profit with the majority of their funding provided by the government (i.e., non-autonomous and centralised) which presumably explained their tendency to be excessively focused on governmental rules (i.e., not enough focused on competitive

markets and organizational culture) and associated rule-based Management Control Systems.

6.4.2.2 *Management Control Systems*

The findings could be described and explained using a theoretical framework based on the concepts of hard and soft Management Control Systems. Hard Management Control Systems promoting clear objectives and control processes associated to specific measures of performance (e.g., governmental rules for accounting and auditing systems) were in place in the higher education industry in Western Canada. The research highlighted that the government used steering media in terms of regulations and provision of funding to achieve specific societal goals with higher education institutions. These steering media implied the use of positional power and/or incentives to initiate actions at an institutional level. However, this top-down principal-agent model was prone to resistance, deviance and opportunistic behaviour at the soft Management Control Systems level (i.e., work ethics, management style and organizational culture). Indeed, the agent (i.e., higher education institutions) determined the optimal actions to take given the incentives offered by the principal (i.e., government) in order to maximise the pay-off, but this was “devious compliance” with no actual changes to interpretive schemes in terms of work ethics, management style or organizational culture.

6.4.2.3 *Human Resources*

The findings could not be described and explained using a theoretical framework based on the concept of Strategic Human Capital. Higher education institutions were relying more on Management Control Systems than on Strategic Human Capital systems. The Human Resources departments were generally transactional, under-staffed, under-qualified, under-resourced and not reporting to the President. This observation could potentially explain why work ethics, management style and organizational culture did not seem to be strategically aligned resulting in resistance, deviance and opportunist behaviours at all levels of higher education institutions (i.e., executive leaders, faculty and staff).

6.4.3 *Speculative Practical Contributions*

The third contribution was related to the way the research and resulting contingency theoretical framework could help reduce the existing theory-practise divide by providing speculative practical contributions (i.e., see Section 5.5).

6.4.3.1 *Management Control Systems*

Speculative recommendations were related to the need for a standardised and redefined Management Control System to be set up by the government and for the involvement of executive leaders in the process. This implied a constant communication process between the government and executive leaders in higher education institutions for the benefit of both parties and ultimately for the benefit of the tax payers (i.e., expected reduction of resistance, deviance and opportunistic behaviour of executive leaders because of consultative and participative process).

Informal and formal networks linking the government to executive leaders in higher education institutions needed to be set-up to help dealing with the fact that: (i) institutions did not clearly understand what the Minister wanted because strategic planning was missing; and (ii) the department and institutions had not identified sustainable funding sources for initiatives.

6.4.3.2 *Human Resources*

Speculative recommendations were related to the need for Human Resources to be recognised as a strategic partner, most of all in the higher education industry where all stakeholders were expected to be involved in the decision making process and the implementation of the strategy. This implied a change in business structure and in the allocation of resources to close the gap between the role played by the Human Resources department today and the role a strategic Human Resources department could play to reduce resistance, deviance and opportunistic behaviour at all level of higher education institutions (i.e., with the strategic alignment of work ethics, management style and organizational culture) for the benefit of executive leaders, and ultimately for the benefit of higher education institutions (i.e., expected reduction of resistance, deviance and

opportunistic behaviours of executive leaders, faculty and staff because of strategic alignment of work ethics, management style and organizational culture).

Informal and formal performance management systems linking the work ethics, management style and organizational culture to the strategy of the higher education institutions needed to be set-up to help dealing with: (i) resistance and deviance; and (ii) opportunistic behaviours.

6.5 Summary

The research and resulting contingency theoretical framework provided an important contribution towards addressing gaps in existing knowledge, by increasing the range of description and explanation of changes in the external and internal strategic environment, strategy, executive leadership, organizational performance, and the role played by Management Control Systems and Human Resources. The research and resulting contingency theoretical framework also provided the basis for speculative recommendations to address the gap between theory and practise.

More research was, however, necessary to further establish the descriptive and explanatory range capability of the contingency theoretical framework (i.e., see Section 5.6, Section 5.7 and Section 5.8). Indeed, the contingency theoretical framework was developed within an exploratory and relativist approach in the sense that its range of description (i.e., whether) and range of explanation (i.e., how) could only go as far as the substantive context it referred to. The theoretical framework was a contingency theoretical framework with guiding propositions that were neither true nor false in every possible circumstance.

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